Bang&Olufsen

Beocenter 2200

Type 2421/22/25

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2458

SERVICEANVISNING
SERVICE MANUAL

Bang&Olufsen

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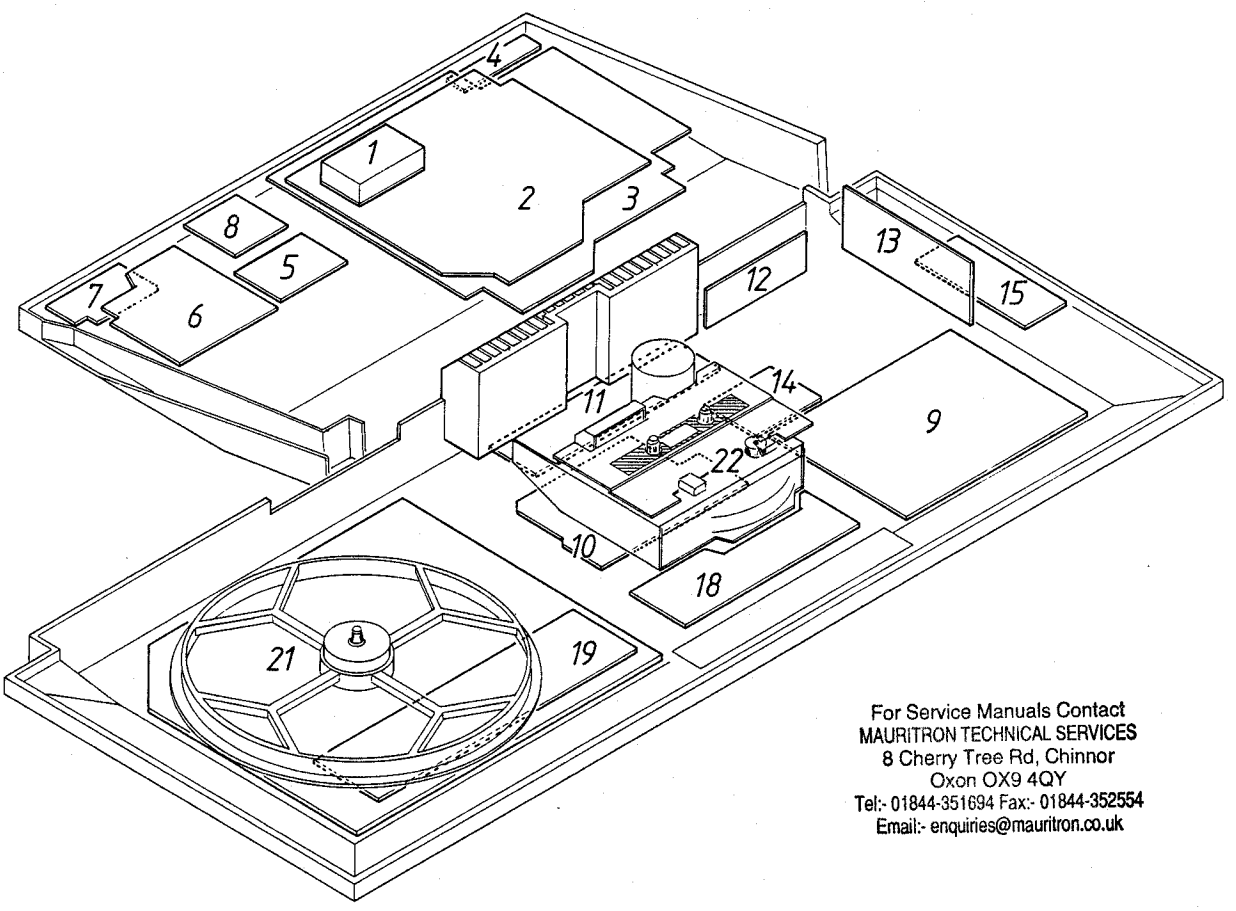

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DIAGRAMFORKLARING

På diagrammet er der angivet typenumre på transistorer og IC'er i de tilfælde hvor typenummeret er entydigt for komponentes placering i kredsløbet – f.eks. TR20/BC 557B

Hvis positionsnummeret er efterfulgt af en stjerne **skal** reservedelsnummeret benyttes, da denne komponent er specielt udvalgt – f.eks. TR102*.

Koordinatsystem

De største printplader er forsynet med et koordinatsystem. Komponenterne på disse printplader er på diagrammet forsynet med en koordinatbetegnelse, som fortæller i hvilket felt på printpladen de er placeret (mindre skrifttype end positionsnummeret - f.eks. B3).

Styrekredsløb

I visse styrekredsløb er den aktive tilstand angivet med en bogstavsbetegnelse (Cr = High med CrO_2 bånd). Hvis betegnelsen er forsynet med negationstegn er den aktive tilstand LOW ($\overline{Cr}$ = LOW med CrO_2 bånd).

Ledningsforbindelser

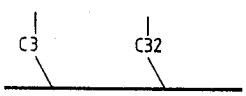
Ledningsforbindelserne på diagrammet er samlet i »bundter«. De enkelte ledninger er forsynet med koder, der fortæller hvortil de går.

INTERN FORBINDELSE
PÅ EN DIAGRAMSIDE

Interne forbindelser på en diagramside angives med et tal. Knækket på ledningen viser i hvilken retning den anden ende af ledningen findes.

FORBINDELSE TIL EN ANDEN
DIAGRAMSIDE

DIAGRAM A



Forbindelsen til en anden diagramside angives med et tal, samt bogstav indikation på det diagram forbindelsen går til.

EXPLANATION OF DIAGRAM

Type numbers of transistors and IC's have been indicated on the diagram in those cases where the type number is unambiguous for the position of the component in a circuitry – e.g. TR20/BC 557B.

If the position number is followed by an asterisk the spare part number **must be used** because this component has been expecially selected – e.g. TR102*.

System of Co-ordinates

The largest PC-boards have been provided with a co-ordinate system. The components on these PC-boards are provided with a grid reference on the diagram indicating in what grid they are positioned on the PC-board (smaller typing than position numbers – e.g. B3).

Control Circuit

In certain control circuits the active mode has been indicated by means of a letter symbol (Cr = HIGH with CrO_2 tapes). If the symbol has a negation superscript bar the active mode is LOW (Cr = LOW with CrO_2 tapes).

Wiring Connections

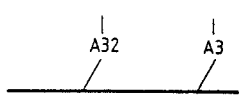
The wiring connections on the diagram are assembled in »bundles«. The individual wires are coded to indicate to where they are leading.

INTERNAL CONNECTION
ON ONE DIAGRAM PAGE

Internal connections on a diagram page are indicated by a number. The bend of the wire indicates in which direction the other end of the wire may be found.

CONNECTION TO ANOTHER
DIAGRAM PAGE

DIAGRAM C



Connections to another diagram page are indicated by a number, as well as by a letter of the diagram to which the connections lead.

Målebetingelser
Alle DC spændinger er målt uden signal, i forhold til stel med voltmeter (indre modstand 10 MΩ).

DC spændinger er opgivet i volt (V). Eks. 0,7 V.

AC spændinger er målt i forhold til stel med oscilloscop eller voltmeter, med en indgangsmodstand på 1 MΩ. AC spændinger er angivet i millivolt (mV). Eks. 725 mV.

Signalveje er vist for henholdsvis AM (stilling MW), FM og for LF højre kanal. Båndoptagerens signalvej for optage position er vist i højre kanal, og gengive position er vist i venstre kanal.

Mekaniske omskiftere er vist i neutral stilling.

Measuring Conditions
All DC voltages are measured without signal relative to ground with voltmeter (inner resistance 10 MΩ).

DC voltages are stated in volts (V), ex.: 0.7 V.

AC voltages are measured relative to ground with oscilloscope or voltmeter with an input resistance of 1 MΩ. AC voltages are stated in millivolt (mV), ex.: 725 mV.

Signal paths are shown for AM (position MW), FM and for AF right channel. The tape recorder signal path in recording position is shown in right channel, and replay position is shown in left channel.

Mechanical switches are shown in neutral position.

Symbol for sikkerhedskomponenter

Ved udskiftning af komponenter med dette symbol skal der anvendes komponenter med samme reservedelsnummer. Den nye komponent skal monteres på samme måde som den udskiftede.

Symbol for Safety Components

When replacing components with this symbol components with identical part numbers are to be used. The new component must be fitted in the same way as the one replaced.

NOTICE EXPLICATIVE DES SCHEMAS

Sur les schémas, les numéros de types sont indiquées pour les transistors et les circuits imprimés dans les cas où le numéro de type est univoque pour la disposition du composant dans un circuit – par example TR20/BC557B.

Si le numéro de position est suivi par un astérisque, il **faut** utiliser le numéro de la piece de rechange, étant donné qu'il dès lors d'un composant spécialement sélectionné – par example TR102*.

Systéme de coordonnées
Les plus grands circuits imprimés sont munis d'un systéme de coordonnées. Les composants de ces circuits imprimés portent un numéro de coordonnée sur le schéma qui indiquent dans quelle coordonnées ils sont placés sur le circuit imprimé (en caractères plus petit que ceux indiquent le numéro de position – par example B3).

Circuits de commande
Dans certains circuits de commande, l'état actif est indiqué par une représentation en lettres (Cr = Haut avec une bande CrO_2). Si cette représentation en lettres est munie d'un trait de négation, cela signifie que l'état actif est bas (Cr = Bas avec une bande CrO_2).

ERLÄUTERUNGEN ZUM SCHALTBILD

Auf dem Schaltbild sind Typen-Nummern für Transistoren und IC's in den Fällen angegeben, in denen die Typen-Nummer für die Plazierung der Komponente in einem Schaltkreis eindeutig ist – z.B. TR20/BC 557B.

Wenn auf die Positionsnummer ein Stern folgt, **ist** die Ersatzteilnummer **zu benutzen**, da diese Komponente speziell ausgewählt werden ist – z.B. TR102*.

Koordinatensystem
Die grössten Printplatten sind mit einem Koordinatensystem versehen. Die Komponenten auf diesen Printplatten sind auf dem Schaltbild mit einer Koordinatennummer versehen, die erzählt, in welcher Koordinate der Printplatte sie angebracht sind (kleinere Schrifttyp als die der Positionsnummer – z.B. B3).

Steuerschaltkreise
Bei gewissen Steuerschaltkreisen ist der aktive Zustand durch eine Buchstabenbezeichnung (Cr = High mit CrO_2-Band) angegeben. Wenn die Bezeichnung mit einem Negationszeichen versehen ist, ist der aktive Zustand Low (Cr = Low mit CrO_2-Band).

Connexions des fils
Les connexions de fils sur le schéma sont assemblées en »faisceaux«. Chaque fil est muni d'un code qui indique sa destination.

CONNEXION INTERNE SUR UN COTE DU SCHEMA

Connexions internes sur une page de schéma doits être indiquées par un numéro. L'angle du fil indique la direction dans laquelle l'autre bout du fil doit être trouvé.

CONNEXION VERS UN AUTRE COTE DU SCHEMA

DIAGRAM A

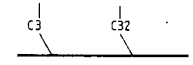
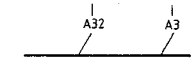


DIAGRAM C



Connexions vers une autre page de schéma doits être indiquées par un numéro, et par lettre du schéma indiquant la distination de la connexion.

Conditions de mesures
Toutes les tensions continues (DC) sont mesurées par rapport à la masse et à l'aide d'un voltmètre (résistance intérieure 10 MΩ).

Les tensions DC sont indiquées en volt (V) par example 0,7 V.

Les oscillogrammes et les tensions alternatives (AC) sont mesurées par rapport à la masse à l'aide d'un oscilloscope ou un voltmétre ayant une impédance d'entrée de 1 MΩ. Les tension AC sont indiquées en millivolt (mV) exemple 725 mV.

Les trajextoires d'un signal sont indiquées pour l'AM (position MW), FM, ainsi que pour le BF canal droit. La trajectoire du signal du magnétophone en position enregistrement est indiquée dans le canal droit, et la position lecture est indiquée dans le canal gauche.

Symbol des composants de sécurité

En remplacant un composant portant ce symbole, il faut utiliser les composants de même no. de référence. Le nouveau composant doit être de monté de la même manière que celui qu'il remplace.

Leitungsverbindungen
Die Leitungsverbindungen sind auf dem Schaltbild in »Bündeln« zusammengefaßt. Die einzelnen Leitungen sind mit Code-Bezeichnungen versehen, die angeben, wohin die Leitungen führen.

INTERNE VERBINDUNGEN AUF EINER SCHALTBILDSEITE

Interne Verbindungen auf einer Schaltbildseite werden mit einem Nummer angeben. Die Biegung der Leitung zeigt in welcher Richtung das andere Ende der Leitung sich befindet.

VERBINDUNGEN AN EINE ANDERE SCHALTBILDSEITE

Die Verbindungen an eine andere Schaltbildseite werden mit einem Nummer, sowie Indikation des Schaltbildes an den die Verbindung geht, angeben.

Messbedingungen
Alle DC Spannungen sind ohne Signal, im Verhältnis zur Masse mit Voltmeter (innerer Widerstand 10 MΩ) gemessen.

DC Spannungen sind in Volt (V) angegeben, z.B.: 0,7 mV.

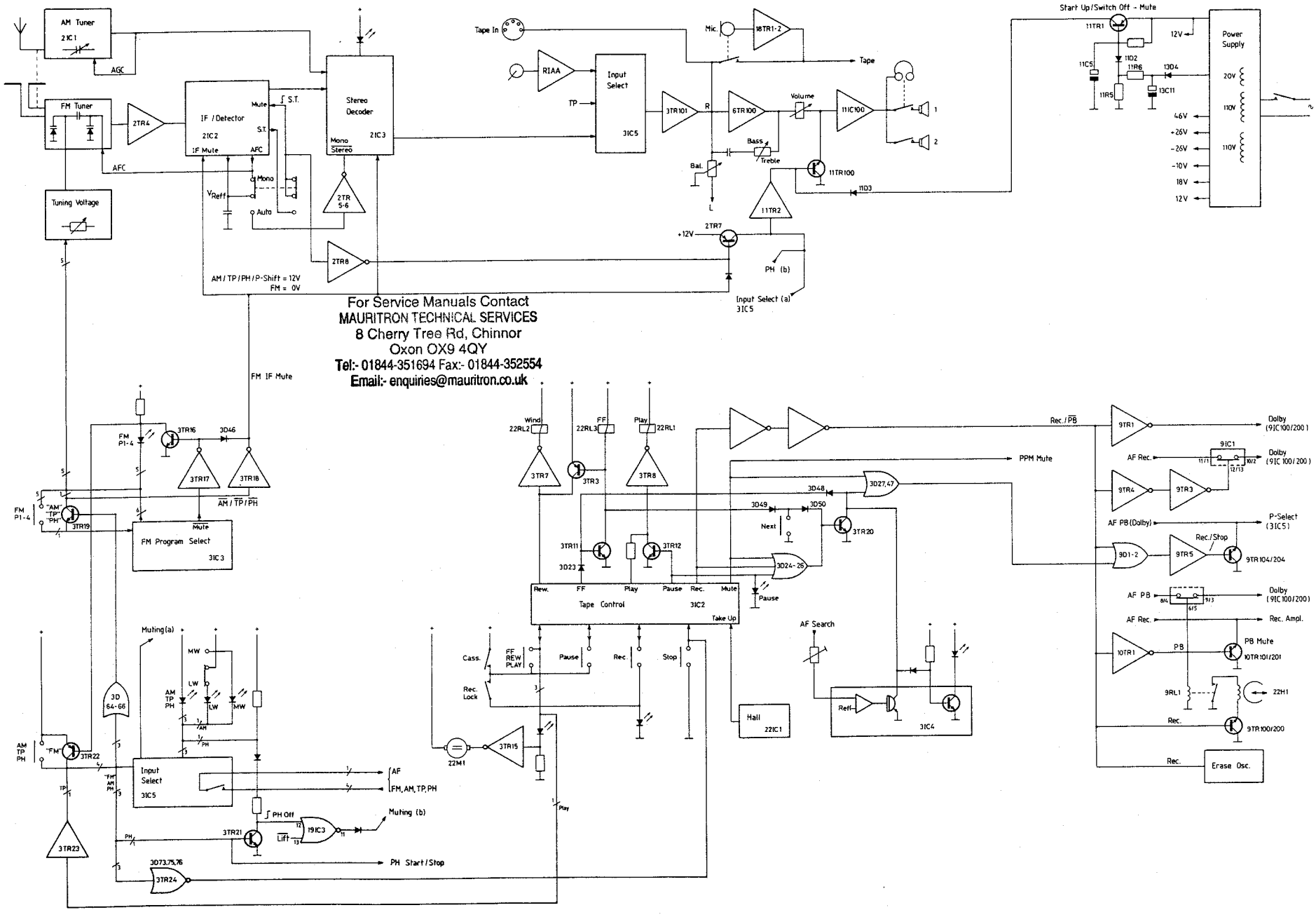
AC Spannungen sind im Verhältnis zur Masse mit Oszilloskop oder Voltmeter mit einem Eingangswiderstand von 1 MOhm gemessen. AC Spannungen sind in Millivolt (mV) angeben, z.B.: 725 mV.

Signalwege für bzw. AM (Stellung MW), FM, Fernbedienung und für NF rechten Kanal sind gezeigt. Der Signalweg des Tonbandgeräts in Stellung Aufnahme ist im rechten Kanal gezeigt und Stellung Wiedergabe ist im linken Kanal gezeigt.

Mechanische Umschalter sind in neutraler Stellung gezeigt.

Symbol für Sicherheitskomponente

Bei der Auswechslung von Komponente mit diesem Symbol sind Komponente mit gleichen Teilnummer zu verwerden. Die neue Komponente ist in derselben Weise wie die ausgewechselte Komponente zu montieren.



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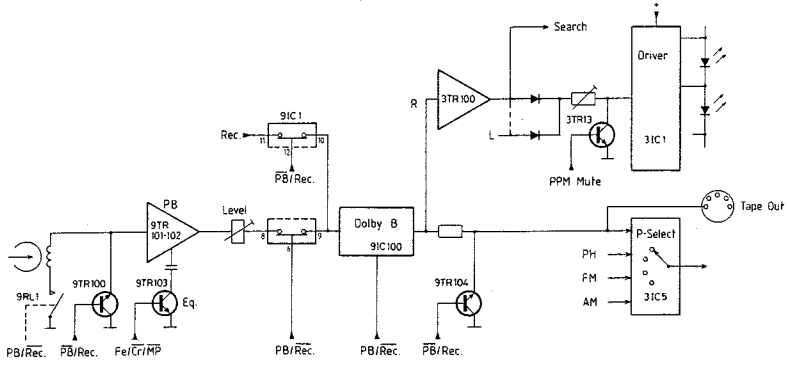
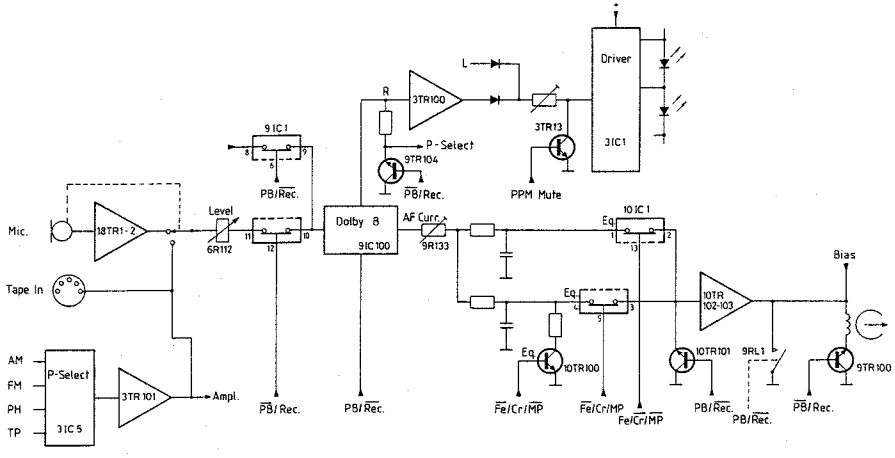
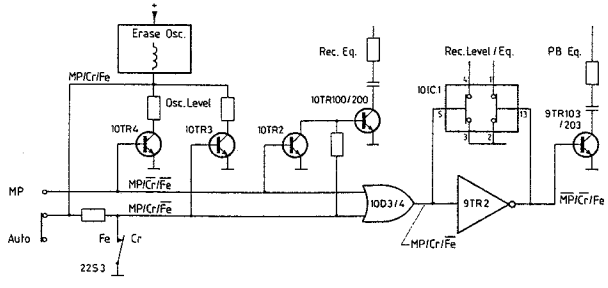
Play-Back



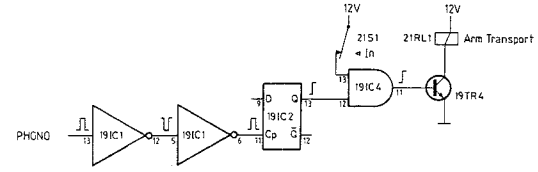
Record



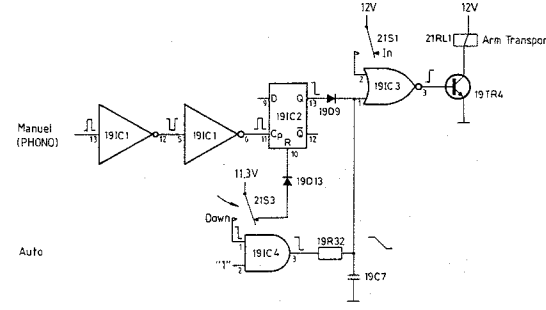
Tape Type Switch



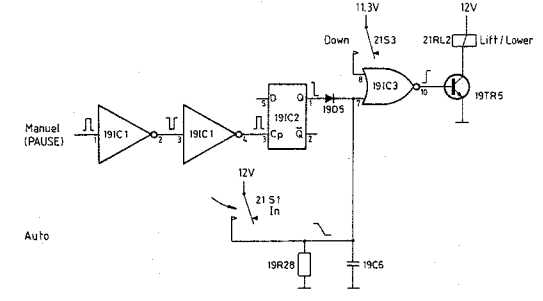
Tonearm, Transport IN



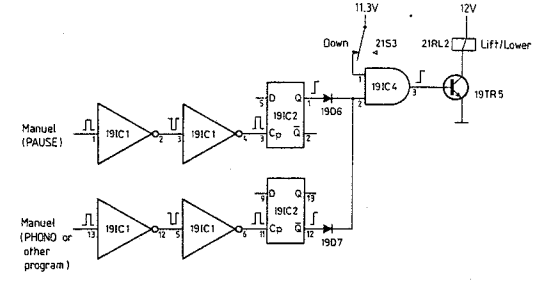
Tonearm, Transport Out



Tonearm, Lower



Tonearm, Lift



1-6

DIAGRAM A

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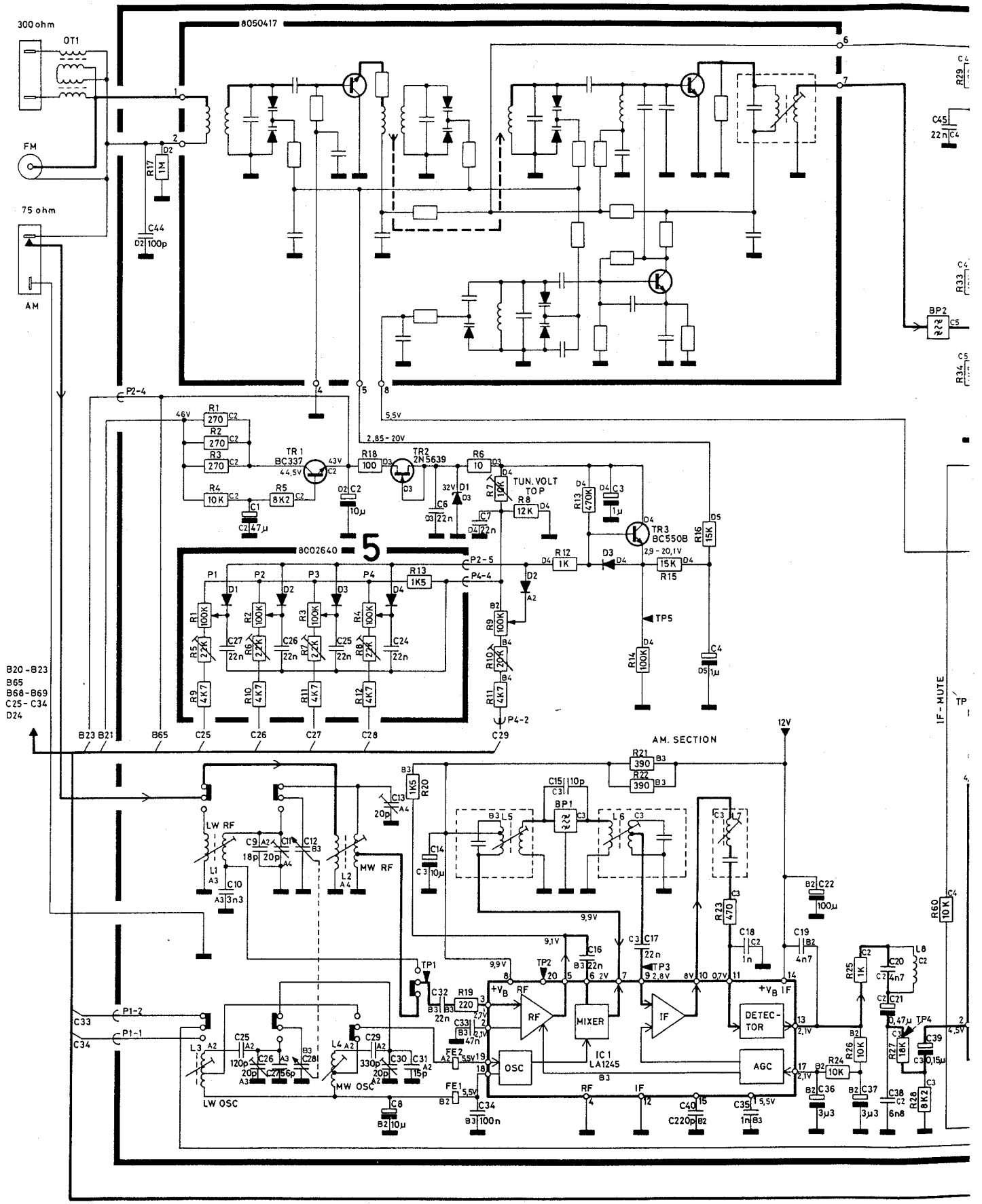

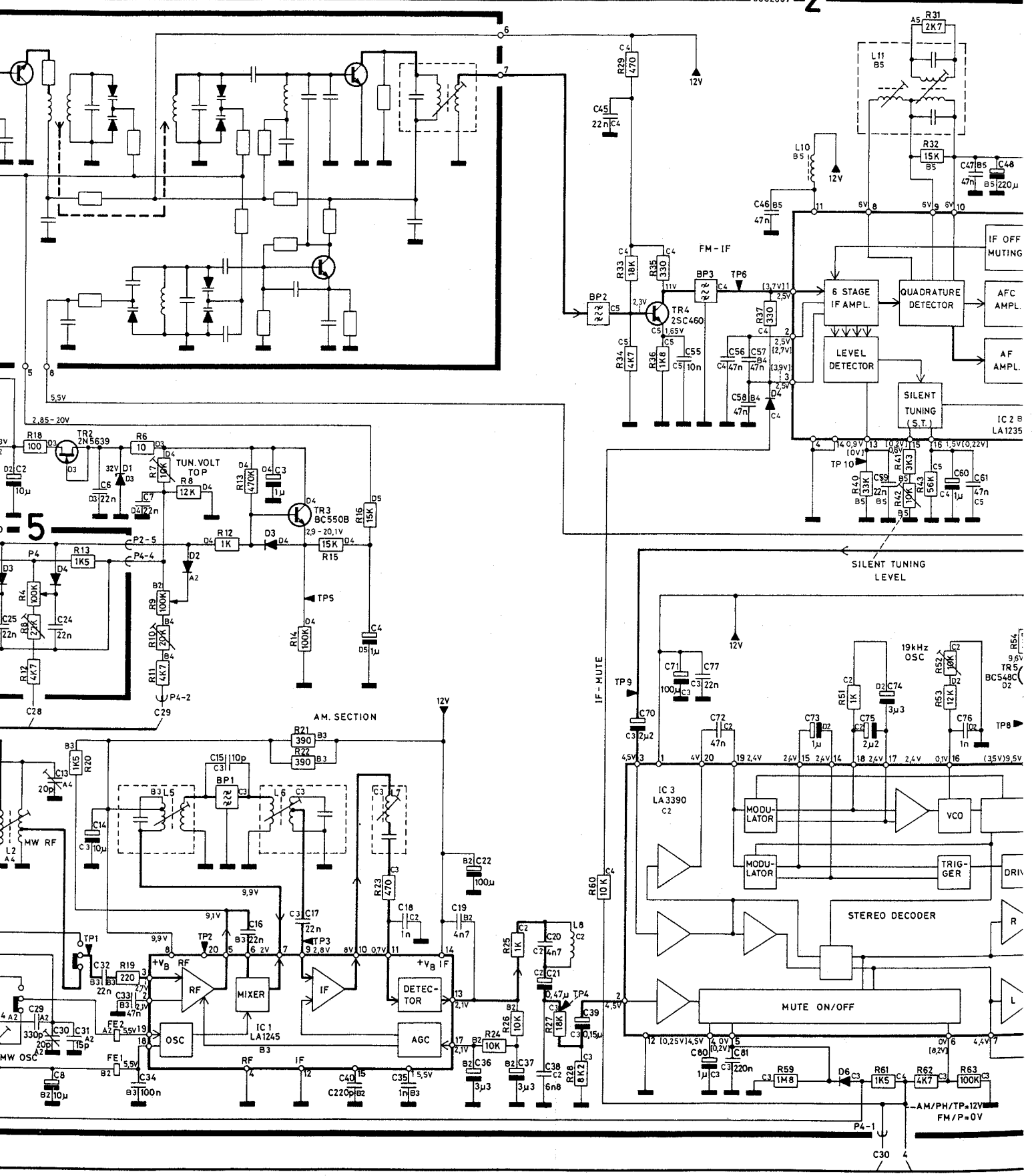

Voltages in [ ] are measured in AM mode
Voltages in ( ) are measured in FM AUTO mode

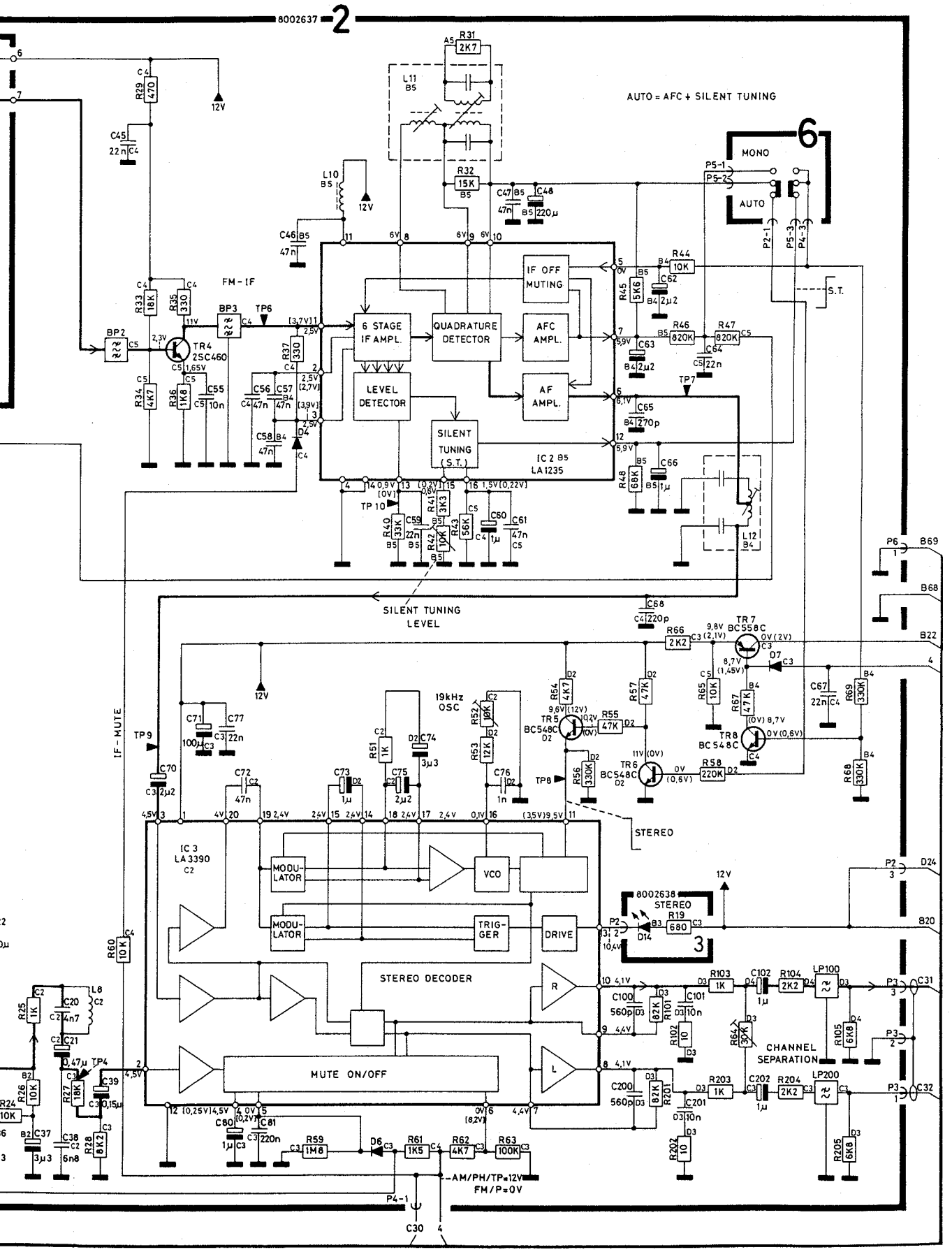
8002637
2
AUTO = AFC + SILENT TUNING
6
MONO
AUTO
P5-1
P5-2
P2-1
P5-3
P4-3
S.T.
FM-IF
6 STAGE IF AMPL.
QUADRATURE DETECTOR
AFC AMPL.
AF AMPL.
LEVEL DETECTOR
SILENT TUNING (S.T.)
IF OFF MUTING
IC 2 B5 LA1235
TR4 2SC460
SILENT TUNING LEVEL
IF-MUTE
19kHz OSC
TR5 BC548C
TR6 BC548C
TR7 BC558C
TR8 BC548C
STEREO
IC 3 LA3390 C2
MODU-LATOR
MODU-LATOR
VCO
TRIG-GER
DRIVE
8002638
STEREO
STEREO DECODER
MUTE ON/OFF
CHANNEL SEPARATION
AM/PH/TP=12V
FM/P=0V
Voltages in [ ] are measured in AM mode
Voltages in ( ) are measured in FM AUTO mode

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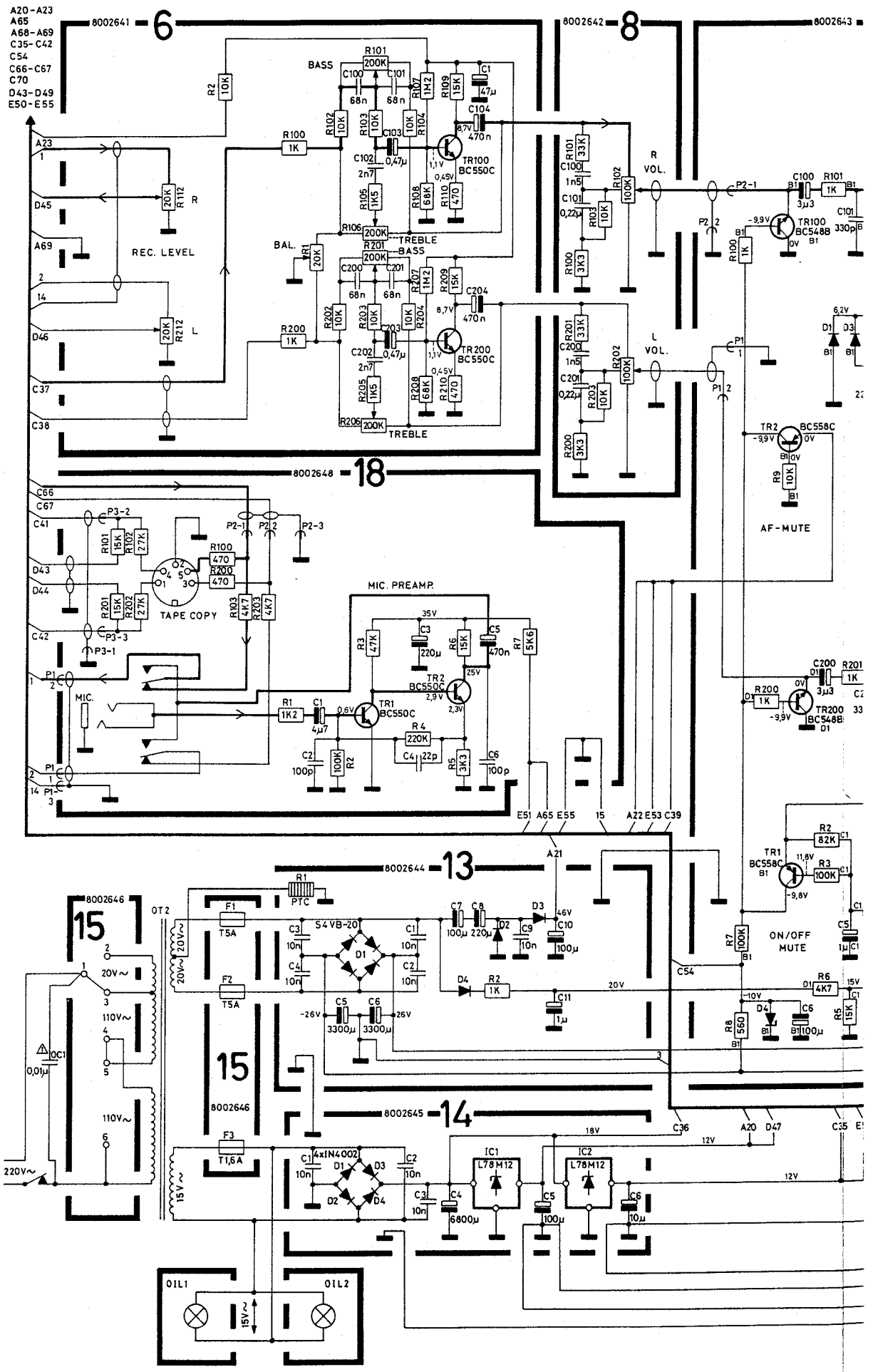
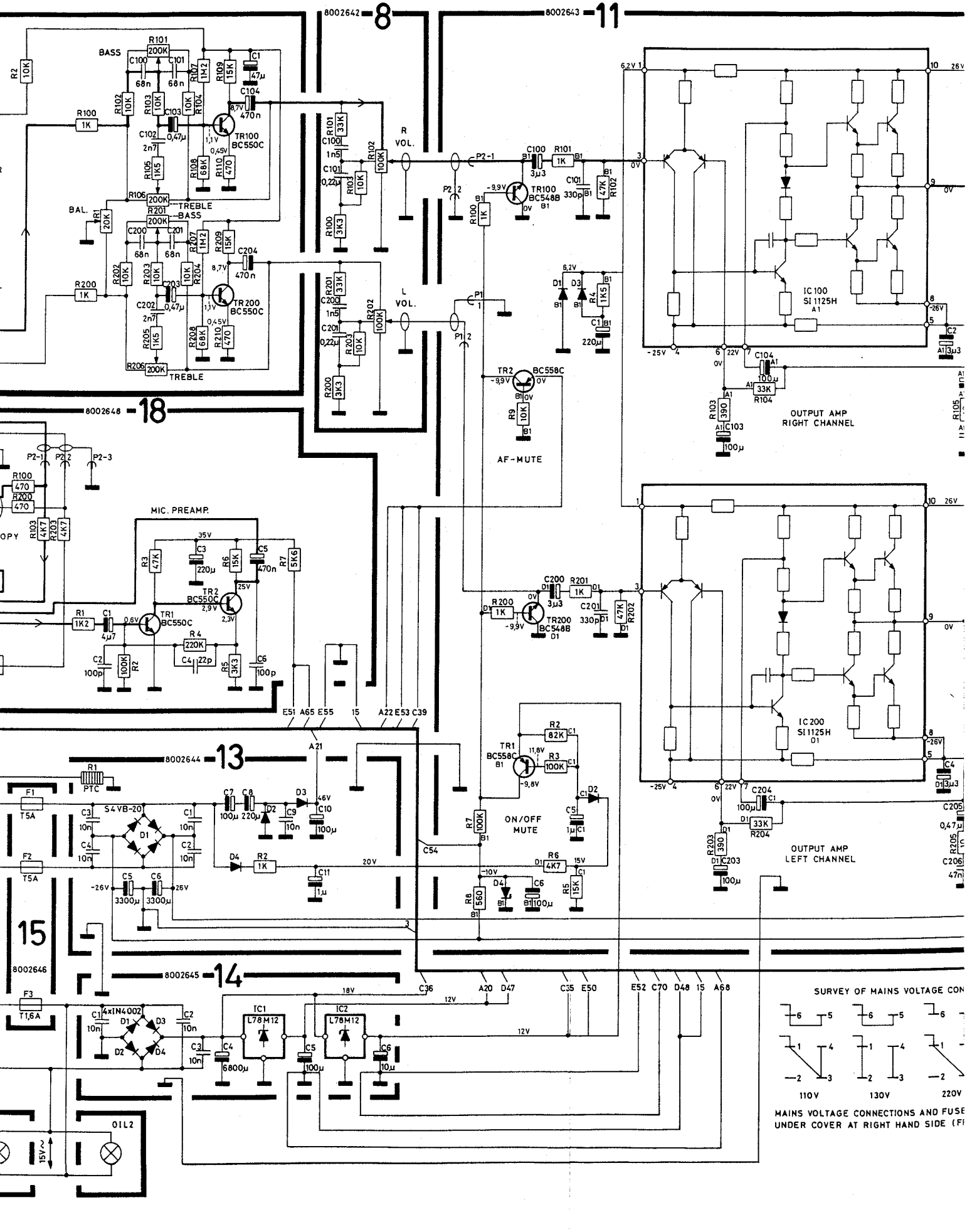
DIAGRAM B




8002642 -8
8002643 -11
BASS
TREBLE
BAL.
R VOL.
L VOL.
TR100 BC550C
TR200 BC550C
TR100 BC548B
TR200 BC548B
TR2 BC558C
AF-MUTE
IC 100 SI 1125H
IC 200 SI 1125H
OUTPUT AMP RIGHT CHANNEL
OUTPUT AMP LEFT CHANNEL
8002648 -18
MIC. PREAMP.
TR1 BC550C
TR2 BC550C
8002644 -13
ON/OFF MUTE
8002646
15
8002645 -14
S4VB-20
4xIN4002
IC1 L78M12
IC2 L78M12
SURVEY OF MAINS VOLTAGE CON
110V
130V
220V
MAINS VOLTAGE CONNECTIONS AND FUSE
UNDER COVER AT RIGHT HAND SIDE (FI

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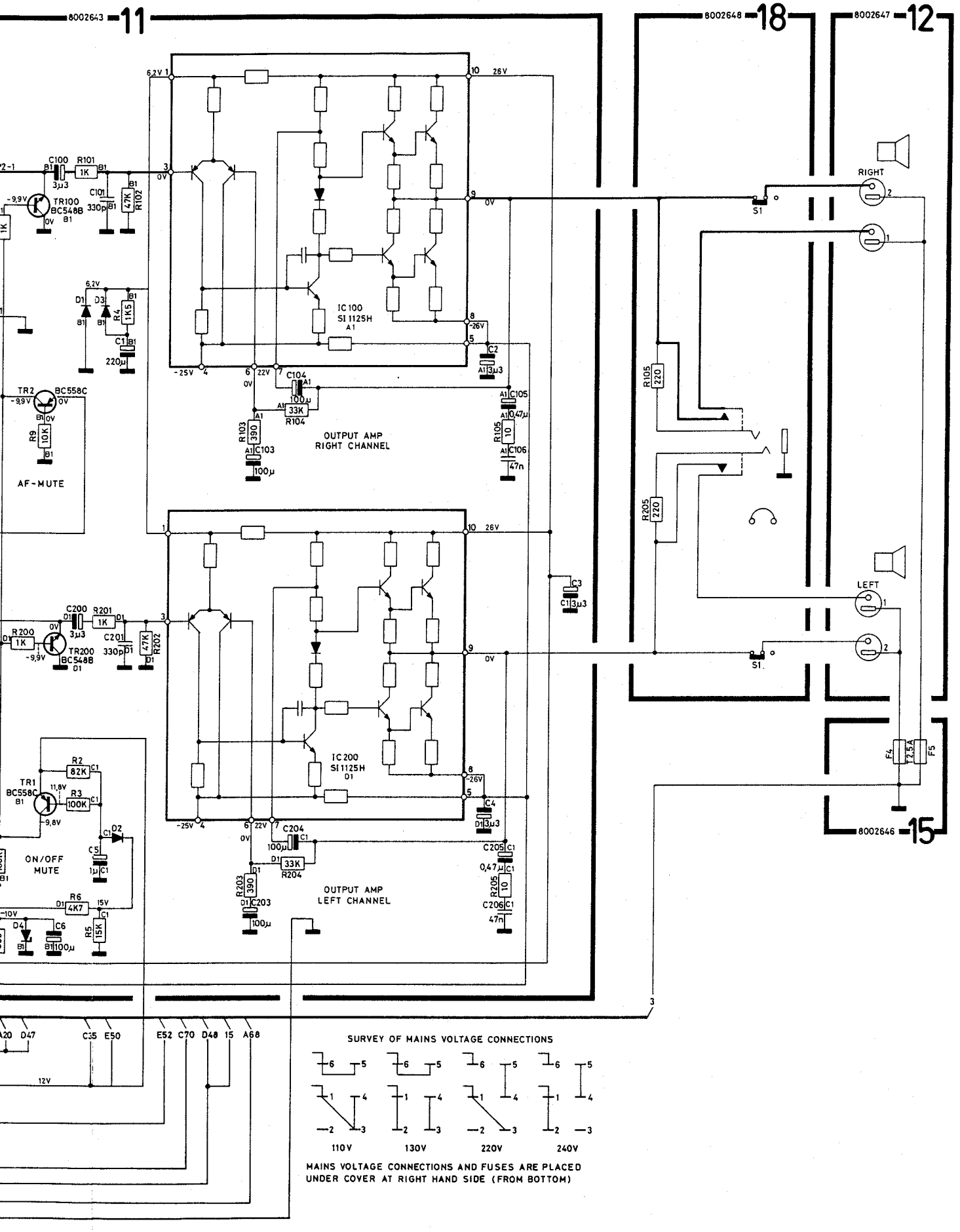

DIAGRAM C

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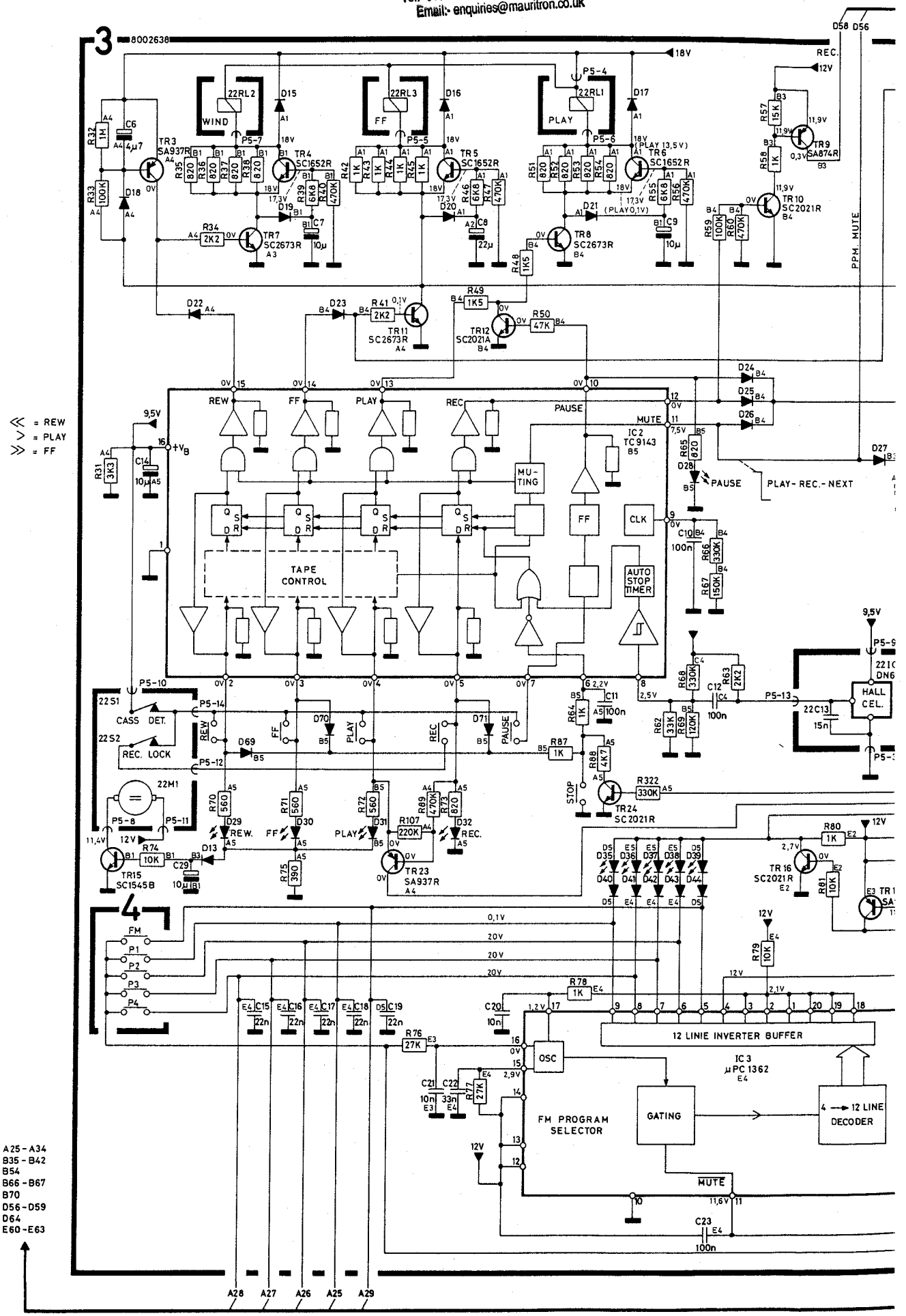
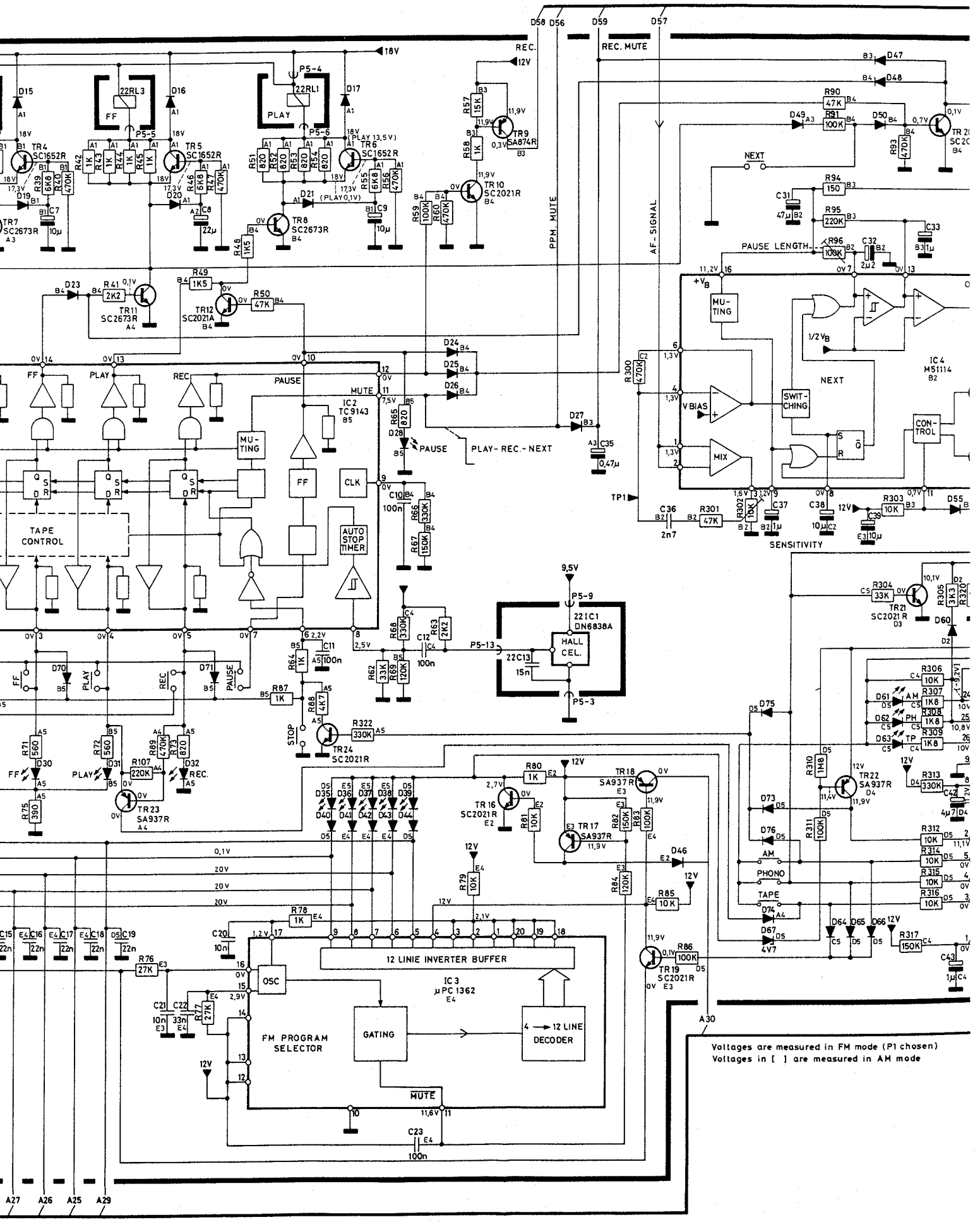



REC.
REC. MUTE
PPM. MUTE
AF-SIGNAL
PAUSE LENGTH
NEXT
PLAY- REC.- NEXT
SENSITIVITY
TAPE CONTROL
12 LINIE INVERTER BUFFER
IC 3 µPC 1362
OSC
FM PROGRAM SELECTOR
GATING
4 → 12 LINE DECODER
MUTE
MU-TING
SWIT-CHING
CON-TROL
V BIAS
MIX
HALL CEL.
AUTO STOP TIMER
AM
PHONO
TAPE
Voltages are measured in FM mode (P1 chosen)
Voltages in [ ] are measured in AM mode

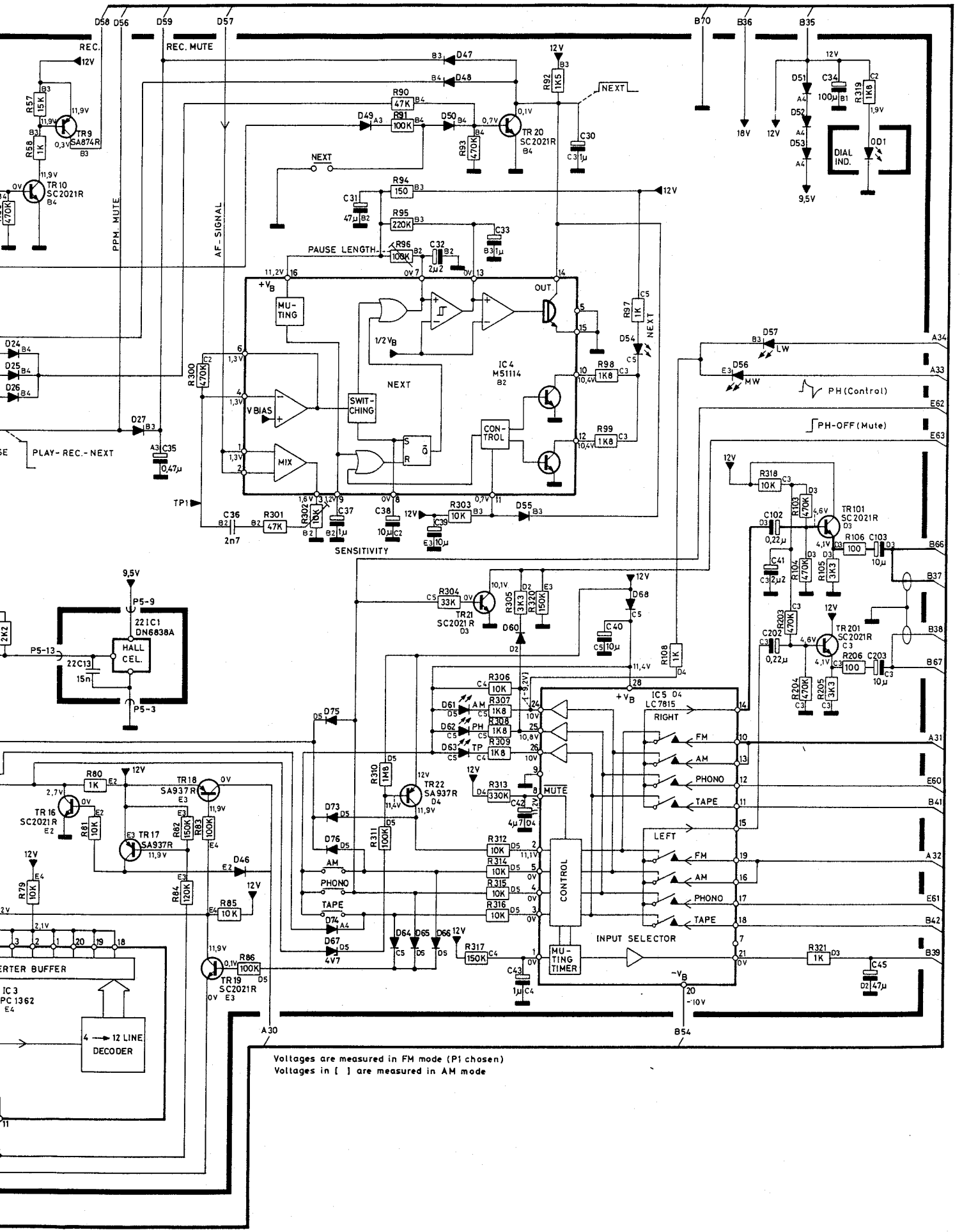
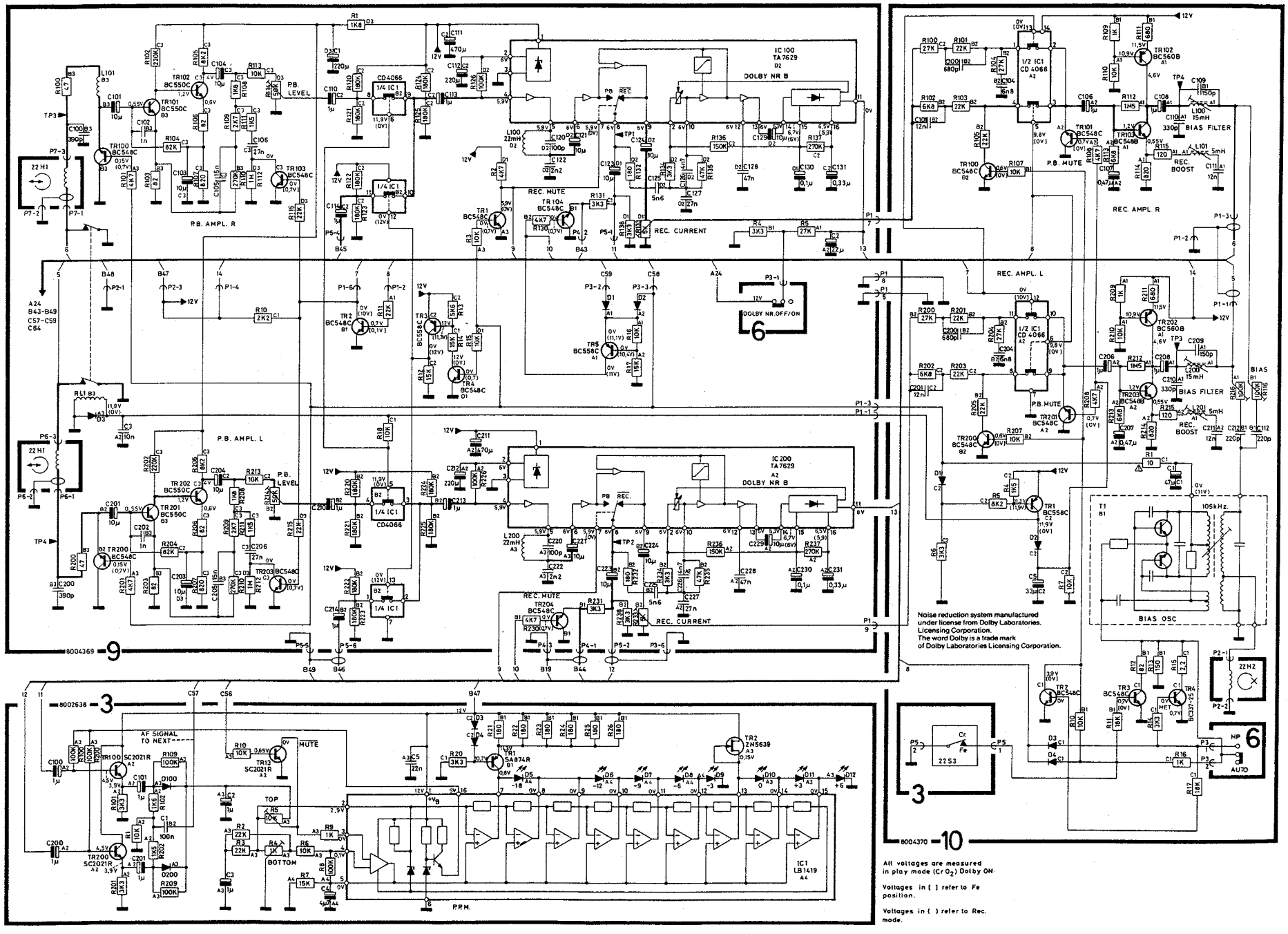
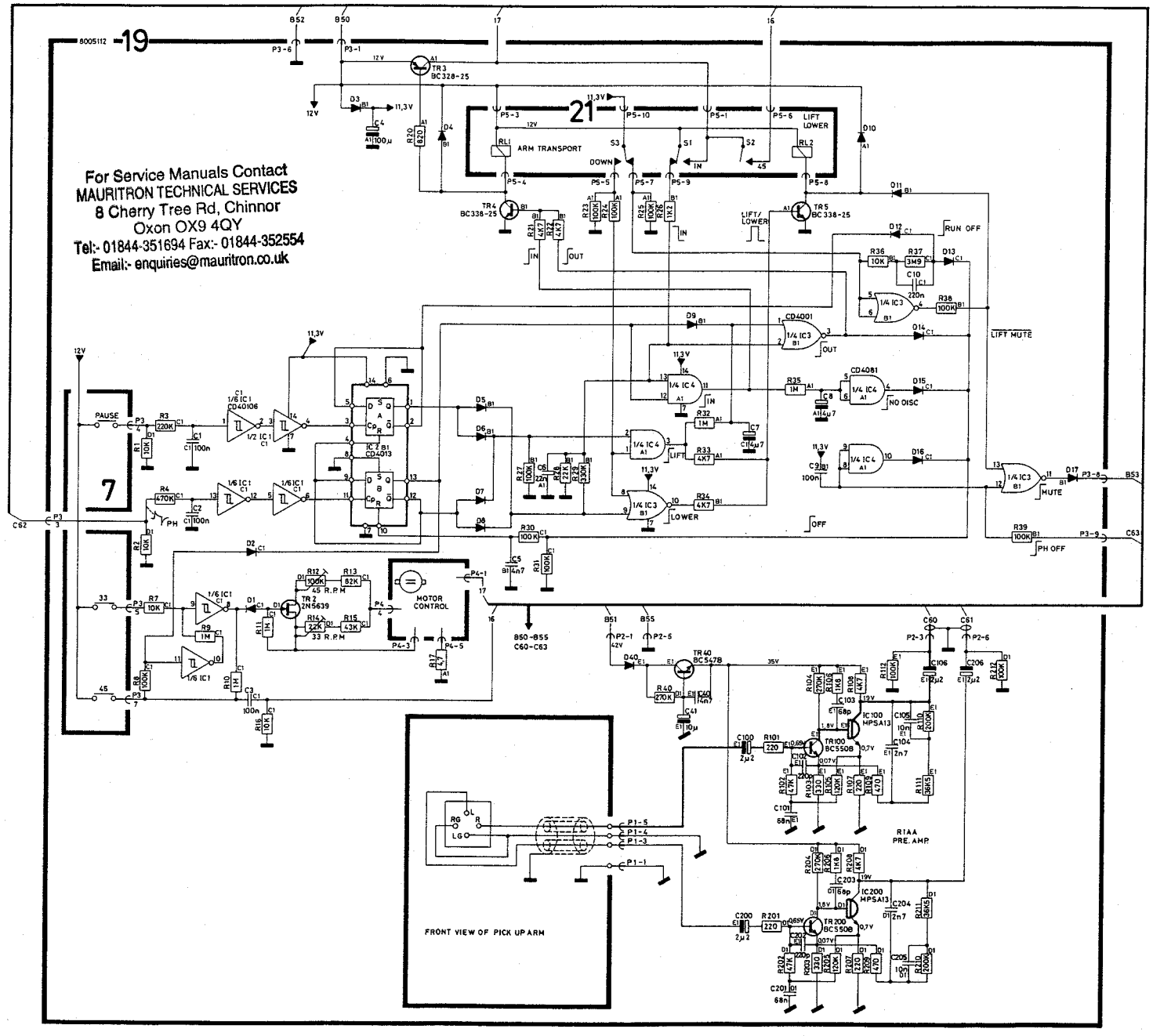
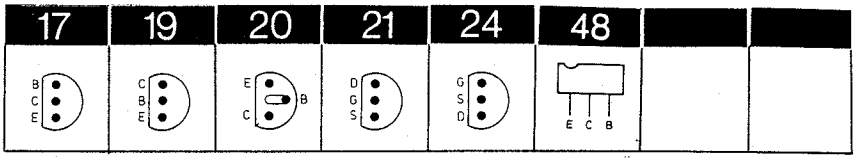

REC.
REC. MUTE
PPM. MUTE
AF. SIGNAL
PLAY-REC.-NEXT
PAUSE LENGTH
SENSITIVITY
NEXT
MU-TING
SWIT-CHING
CON-TROL
VBIAS
MIX
IC4 M51114
PH (Control)
PH-OFF (Mute)
LW
MW
DIAL IND.
HALL CEL.
IC1 DN6838A
TR9 SA874R
TR10 SC2021R
TR20 SC2021R
TR101 SC2021R
TR201 SC2021R
TR16 SC2021R
TR17 SA937R
TR18 SA937R
TR19 SC2021R
TR21 SC2021R
TR22 SA937R
IC5 LC7815
RIGHT
LEFT
FM
AM
PHONO
TAPE
MUTE
CONTROL
INPUT SELECTOR
MU-TING TIMER
4 → 12 LINE DECODER
Voltages are measured in FM mode (P1 chosen)
Voltages in [ ] are measured in AM mode

DIAGRAM D


IC 100 TA 7629 D2 DOLBY NR B
IC 200 TA 7629 A2 DOLBY NR B
P.B. AMPL. R
P.B. AMPL. L
REC. AMPL. R
REC. AMPL. L
REC. MUTE
REC. CURRENT
P.B. LEVEL
P.B. MUTE
REC. BOOST
BIAS FILTER
BIAS OSC
BIAS
DOLBY NR.OFF/ON
105kHz.
Noise reduction system manufactured under license from Dolby Laboratories. Licensing Corporation. The word Dolby is a trade mark of Dolby Laboratories Licensing Corporation.
8004369
9
8002638
3
8004370
10
6
AF SIGNAL TO NEXT
MUTE
TOP
BOTTOM
P.P.M.
IC1 LB1419
AUTO
All voltages are measured in play mode (Cr O2) Dolby ON
Voltages in [ ] refer to Fe position.
Voltages in ( ) refer to Rec. mode.


8005112 -19
For Service Manuals Contact
MAURITRON TECHNICAL SERVICES
8 Cherry Tree Rd, Chinnor
Oxon OX9 4QY
Tel:- 01844-351694 Fax:- 01844-352554
Email:- enquiries@mauritron.co.uk
ARM TRANSPORT
LIFT LOWER
RUN OFF
LIFT MUTE
MUTE
PH OFF
NO DISC
LIFT
LOWER
OFF
PAUSE
MOTOR CONTROL
45 R.P.M
33 R.P.M
FRONT VIEW OF PICK UP ARM
RIAA PRE. AMP.

SEMICONDUCTORS



Transistors

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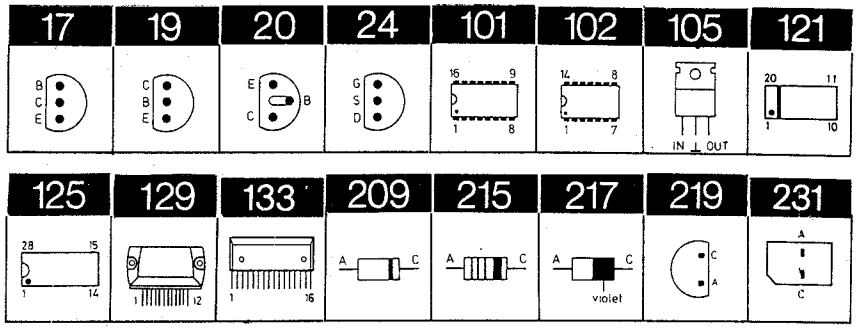
2TR1	8320295	**17**	C 2060 Q
		20	BC 337
2TR2	8320396	**21**	K246 BL
		24	MPF 4392
		24	2N 5639
2TR3	8320344	**17**	C1740 Q
		20	BC 550B
2TR4	8320459	**17**	C1675 K
2TR5	8320285	**17**	C2603 F
2TR6		**20**	BC 548C
2TR7	8320398	**17**	A1115 F
		20	BC 558C
2TR8	8320285	**17**	C2603 F
		20	BC 548C
3TR1	8320560	**48**	A874 R
3TR2	8320396	**21**	K246 BL
		24	MPF 4392
		24	2N 5639
3TR3	8320561	**48**	A937 R
3TR4	8320562	**48**	C1652 R
3TR5			
3TR6			
3TR7	8320564	**48**	C2673 R
3TR8			
3TR9	8320560	**48**	A874 R
3TR10	8320563	**48**	C2021 R
3TR11	8320564	**48**	C2673 R
3TR12	8320563	**48**	C2021 R
3TR13			
3TR15	8320565	**48**	C1545 B
3TR16	8320563	**48**	C2021 R
3TR17	8320561	**48**	A937 R
3TR18			
3TR19	8320563	**48**	C2021 R
3TR20			
3TR21			
3TR22	8320561	**48**	A937 R
3TR24	8320563	**48**	C2021 R
3TR25	8320561	**48**	A937 R
3TR100	8320563	**48**	C2021 R
3TR101			
6TR100	8320458	**17**	C2603 F
		20	BC 550C
9TR1	8320285	**17**	C2603 F
9TR2		**20**	BC 548C
9TR3	8320398	**17**	A1115 F
		20	BC 558C
9TR4	8320285	**17**	C2603 F
		20	BC 548C
9TR5	8320398	**17**	A1115 F
		20	BC 558C
9TR100	8320285	**17**	C2603 F
		20	BC 548C
9TR101	8320458	**17**	C1344 E
9TR102		**20**	BC 550C
9TR103	8320285	**17**	C2603 F
9TR104		**20**	BC 548C
10TR1	8320398	**17**	A1115 F
		20	BC 558C
10TR2	8320285	**17**	C2603 F
10TR3		**20**	BC 548C
10TR4	8320295	**17**	D467 C
10TR100	8320285	**17**	C2603 F
10TR101		**20**	BC 548C
10TR102	8320385	**17**	A836 E
		20	BC560 B



10TR103	8320108	**17**	C458 D
		20	BC548 B
11TR1	8320398	**17**	A733 K
11TR2		**20**	BC 558C
11TR100	8320108	**17**	C2878 B
		20	BC548 B
18TR1	8320458	**17**	C1344 E
18TR2		**20**	BC 550C
19TR2	8320396	**24**	2N 5639
		24	MPF 4392
19TR3	8320448	**20**	BC 328
19TR4	8320329	**20**	BC 338
19TR5			
19TR40	8320097	**20**	BC 547B
19TR100	8320458	**20**	BC 550C

IC's

2IC1	8340576	**121**	LA 1245
2IC2	8340574	**101**	LA 1235
2IC3	8340575	**121**	LA 3390
3IC1	8340582	**101**	LB 1419
3IC2	8340580	**101**	TC 9143
3IC3	8340579	**121**	µPC 1362
3IC4	8340581	**133**	M51144
3IC5Δ	8340578	**125**	LC7815
9IC1Δ	8340202	**102**	CD4066 BCN
		102	HEF 4066 BP
		102	MC14066BCP
9IC100	8340577	**101**	TA 7629
10IC1Δ	8340202	**102**	CD 4066BCN
		102	HEF 4066BP
		102	MC14066BCP
11IC100	8340256	**129**	SI-1125H
14IC1	8340583	**105**	L 78M12
14IC2			
19IC1Δ	8340221	**102**	CD 40106
		102	HEF 40106BP
19IC2Δ	8340176	**102**	CD 4013BCN
		102	MC14013BCP
		102	HEF 4013BP
19IC3Δ	8340167	**102**	CD 4001
		102	HEF 4001BP
19IC4Δ	8340172	**102**	CD 4081BCN
		102	MC14081BCP
		102	HEF 4081BP
19IC100	8340054	**19**	MPSA 13

Δ betyder at statisk elektricitet kan ødelægge komponenten.
Δ indicates that static electricity may destroy the component.
Δ bedeutet, daß statische Elektrizität die Komponente zerstören kann.
Δ signifi que électricité statique peut detruire le composant.

Diodes

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Oxon OX9 4QY
Tel:- 01844-351694 Fax:- 01844-352554
Email:- enquiries@mauritron.co.uk

0D1	8330119		Dial LED
2D1	8340252	**219**	µPC 574
2D2-7	8300058	**209**	S 2076
3D3-4		**209**	1N 4148
		217	SFD 184
		215	1N 4148
3D5-9	8330098	**231**	SLP 265B gr
3D10-13	8330099	**231**	SLP 165B r
3D14	8330098	**231**	SLP 265B gr
3D15-17	8300023	**209**	DA 135E
		209	1N 4002
3D18	8300058	**209**	S 2076
		209	1N 4148
		217	SFD 184
		215	1N 4148
3D19-21	8300023	**209**	DA 135E
		209	1N 4002
3D22-27	8300058	**209**	S 2076
		209	1N 4148
		217	SFD 184
		215	1N 4148
3D28-39	8300099	**231**	SLP 165B r
3D40-53	8300058	**209**	S 2076
		209	1N 4148
		217	SFD 184
		215	1N 4148
3D54	8330099	**231**	SLP 165B r
3D55	8300058	**209**	S 2076
		209	1N 4148
		217	SFD 184
		215	1N 4148
3D56-57	8300099	**231**	SLP 165B r
3D60	8300058	**209**	S 2076
		209	1N 4148
		217	SFD 184
		215	1N 4148
3D61-63	8330099	**231**	SLP 165B r
3D64-66	8300058	**209**	S 2076
		209	1N 4148
		217	SFD 184
		215	1N 4148
3D67	8300036	**209**	ZPD 4.7V
		209	BZX 79C4.7V
		209	BZX 83C4.7V
3D68-76	8300058	**209**	S 2076
		209	1N 4148
		217	SFD 184
		215	1N 4148
3D100	8300430	**209**	K 34A
5D1-4	8300058	**209**	S 2076
9D1-3		**209**	1N 4148
10D1-4		**217**	SFD 184
		215	1N 4148
11D1	8300201	**209**	RD 6,2BD
		209	ZPD 6,2V
		209	BZX 79C6,2V
		209	BZX 83C6,2V
11D2-3	8300058	**209**	S 2076
		209	1N 4148
		217	SFD 184
		215	1N 4148
11D4	8300310	**209**	RD 10EBD
		209	ZPD 10V
		209	BZX 83C10V
		209	BZX 79C10V
13D1	8300330		S4VB-20
13D2-4	8300023	**209**	DS 135E
14D1-4		**209**	1N 4002
19D1-2	8300058	**209**	1N 4148
		217	SFD 184
		215	1N 4148
19D3	8300023	**209**	1N 4002
19D4-17	8300058	**209**	1N 4148
		217	SFD 184
		215	1N 4148

Bang&Olufsen

LIST OF ELECTRICAL PARTS

Resistors not mentioned are standard 5% 1/4 W

0C1	4130081	10 nF 20% 125V	0T1	8020141	Aerial transformer
0IL1	8230048	18V/60 mA	0T2	8013280	Mains transformer
0IL2	8230048	18V/60 mA			

AM-FM IF & MPX 8002637-PCB2

R7	5370248	10 kΩ 20%	R42	5370250	10 kΩ 20%
R10	5370251	20 kΩ 20%	R52	5370248	10 kΩ 20%
R11	5020653	4.7 kΩ 1% 1/4W	R64	5370249	30 kΩ 20%
C1	4200144	47 µF 50V	C39	4200475	0.15 µF 50V
C2	4200487	10 µF 500V	C40	4010021	220 pF 10% 100V
C3	4200426	1 µF 50V	C44	4003128	100 pF 5% 63V
C4	4200426	1 µF 50V	C45	4010060	22 nF -20+80% 40V
C6	4010060	22 nF -20+80% 40V	C46	4030015	47 nF -20+80% 16V
C7	4010060	22 nF -20+80% 40V	C47	4030015	47 nF -20+80% 16V
C8	4200431	10 µF 16V	C48	4200440	220 µF 10V
C9	4000081	18 pF 5% 63V	C55	4010041	10 µF -20+80% 40V
C10	4100033	3.3 nF 5% 63V	C56	4030015	47 nF -20+80% 16V
C11	4340019	20 pF	C57	4030015	47 nF -20+80% 16V
C12	4310016	2x335 pF	C58	4030015	47 nF -20+80% 16V
C13	4340019	20 pF	C59	4010060	22 nF -20+80% 40V
C14	4200431	10 µF 16V	C60	4200426	1 µF 50V
C15	4000016	10 pF 2% 63V	C61	4030015	47 nF -20+80% 16V
C16	4010060	22 nF -20+80% 40V	C62	4200423	2.2 µF 50V
C17	4010060	22 nF -20+80% 40V	C63	4200423	2.2 µF 50V
C18	4010027	1 nF 10% 100V	C64	4010060	22 nF -20+80% 40V
C19	4010063	4.7 nF 10% 63V	C65	4010081	270 pF 10% 100V
C20	4010063	4.7 nF 10% 63V	C66	4200426	1 µF 50V
C21	4200476	0.47 µF 50V	C67	4010060	22 nF -20%80% 40V
C22	4200438	100 µF 16V	C68	4010021	220 pF 10% 100V
C25	4101003	120 pF 5% 63V	C70	4200423	2.2 µF 50V
C26	4340019	20 pF	C71	4200438	100 µF 16V
C27	4003124	56 pF 2% 63V	C72	4030015	47 nF -20+80% 16V
C28	4310016	2x335 pF	C73	4200426	1 µF 50V
C29	4101009	330 pF 5% 63V	C74	4200485	3.3 µF 50V
C30	4340019	20 pF	C75	4200423	2.2 µF 50V
C31	4000049	15 pF 2% 63V	C76	4101019	1 nF 5% 63V
C32	4010060	22 nF -20+80% 40V	C77	4010060	22 nF -20+80% 40V
C33	4030015	47 nF -20+80% 16V	C80	4200426	1 µF 50V
C34	4030010	0.1 µF -20+100% 16V	C81	4130186	220 nF 20% 125V
C35	4010027	1 nF 10% 100V	C100	4010064	560 pF 10% 63V
C36	4200485	3.3 µF 50V	C101	4130172	10 nF 10% 63V
C37	4200485	3.3 µF 50V	C102	4200426	1 µF 50V
BP1	8030043	10.7 MHz	LP100	8030041	19/38 kHz
BP2	8030044	10.7 MHz			
BP3	8030015	468 kHz			
L1	8020346	LW aerial	L7	8020350	468 kHz
L2	8020345	MW aerial	L8	8020270	LP
L3	8020344	LW Osc.	L10	8020269	2.2 mH
L4	8020343	MW Osc.	L11	8030040	FM Det.
L5	8020347	468 kHz	L12	8030042	114 kHz
L6	8020348	468 kHz			
FE1	6710001	Core beads			
FE2	6710001	Core beads			
P1	7220367	Connector 2 pol.			
P2	7220371	Connector 5 pol.			
P3	7220313	Connector 3 pol.			
P4	7220370	Connector 4 pol.			
P5	7220368	Connector 3 pol.			

Control Circuit 8002638 - PCB3

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R4	5370252	1 kΩ 20%	R76	5370246	100 kΩ 20%
R5	5370042	10 kΩ 20%	R302	5370042	10 kΩ 20%

C1	4130179	100 nF 20% 63V	C23	4130179	100 nF 20% 63V
C2	4200574	1 µF 50V	C29	4200577	10 µF 16V
C3	4200574	1 µF 50V	C30	4200574	1 µF 50V
C4	4200576	4.7 25V	C31	4200580	47 µF 16V
C5	4010060	22 nF -20+80% 40V	C32	4200575	2.2 µF 50V
C6	4200576	4.7 µF 25V	C33	4200574	1 µF 50V
C7	4200578	10 µF 25V	C34	4200581	100 µF 16V
C8	4200579	22 µF 25V	C35	4200573	0.47 µF 50V
C9	4200578	10 µF 25V	C37	4200574	1 µF 50V
C10	4130179	100 nF 20% 63V	C38	4200577	10 µF 16V
C11	4130179	100 nF 20% 63V	C39	4200577	10 µF 16V
C12	4130179	100 nF 20% 63V	C40	4200577	10 µF 16V
C14	4200577	10 µF 16V	C41	4200575	2.2 µF 50V
C15	4010060	22 nF -20+80% 40V	C42	4200576	4.7 µF 25V
C16	4010060	22 nF -20+80% 40V	C43	4200574	1 µF 50V
C17	4010060	22 nF -20+80% 40V	C45	4200580	47 µF 16V
C18	4010060	22 nF -20+80% 40V	C100	4200574	1 µF 50V
C19	4010060	22 nF -20+80% 40V	C101	4200574	1 µF 50V
C20	4010041	10 nF -20+80% 40V	C102	4200572	0.22 µF 50V
C21	4010041	10 nF -20+80% 40V	C103	4200577	10 µF 16V
C22	4130176	33 nF 20% 63V			

P5	7220372	Connector 14 pol.

FM Preset 8002640 - PCB5

R1	5300125	100 kΩ	R7	5370040	22 kΩ 20%
R2	5300125	100 kΩ	R8	5370040	22 kΩ 20%
R3	5300125	100 kΩ	R9	5020653	4.7 kΩ 1% 1/4W
R4	5300125	100 kΩ	R10	5020653	4.7 kΩ 1% 1/4W
R5	5370040	22 kΩ 20%	R11	5020653	4.7 kΩ 1% 1/4W
R6	5370040	22 kΩ 20%	R12	5020653	4.7 kΩ 1% 1/4W

C24	4010060	22 nF -20+80% 40V	C26	4010060	22 nF -20+80% 40V
C25	4010060	22 nF -20+80% 40V	C27	4010060	22 nF -20+80% 40V

Secondary Controls 8002641 - PCB6

R1	5310115	20 kΩ BALANCE	R106	5310116	200 kΩ TREBLE
R101	5310116	200 kΩ BASS	R112	5310014	200 kΩ REC LEVEL

C1	4200144	47 µF 50V	C103	4200573	0.47 µF 50V
C100	4130264	68 nF 10% 63V	C104	4200573	0.47 µF 50V
C101	4130264	68 nF 10% 63V	C105	4003128	100 pF 5% 63V
C102	4100076	2.7 nF 2.5% 63V			

Volume Control 8002642 - PCB8

R102	5310117	100 kΩ VOLUMEN	C100	4010067	1.5 nF 10% 63V
			C101	4130215	220 nF 20% 63V

PB-Amplifier & Dolby Processor 8004369 - PCB9

R114	5370018	50 kΩ 20%	R133	5370247	5 kΩ 20% 1/4W
			R134	5020265	3.3 kΩ 2% 1/4W

C1	4200440	220 µF 10V	C114	4200426	1 µF 50V
C2	4200488	22 µF 16V	C120	4003136	100 pF 2% 63V
C3	4010041	10 nF -20+80% 40V	C121	4200431	10 µF 16V
C100	4010037	390 pF 10% 100V	C221	4200577	10 µF 16V
C101	4200431	10 µF 16V	C122	4100029	2.2 nF 5% 63V
C102	4010027	1 nF 10% 100V	C123	4200431	10 µF 16V
C103	4200431	10 µF 16V	C124	4200431	10 µF 16V
C104	4200431	10 µF 16V	C125	4100049	5.6 µF 1% 63V
C105	4130173	15 nF 10% 63V	C126	4100059	4.7 nF 2.5% 63V
C106	4130175	27 nF 10% 63V	C127	4130180	27 nF 1% 63V
C110	4200426	1 µF 50V	C128	4130178	47 nF 10% 63V
C111	4200444	470 µF 16V	C129	4200431	10 µF 16V
C112	4200440	220 µF 16V	C130	4130179	100 nF 20% 63V
C113	4200426	1 µF 50V	C131	4130187	330 nF 20% 250V

L1	7600075	Reed-relay	L100	8020272	22 mH
			L101	8020271	5.2 mH

P1	7220369	Connector 9 pol.	P5	7220318	Connector 6 pol.
P2	7220313	Connector 3 pol.	P6	7220285	Connector 3 pol.
P3	7220313	Connector 3 pol.	P7	7220285	Connector 3 pol.
P4	7220313	Connector 3 pol.			

Record Ampl. & Bias Osc. 8004370 - PCB10

R1	5020489	10 Ω Safety res.			
R116	5370130	100 kΩ20%			

C1	4200483	47 µF 16V	C107	4200476	0.47 µF 50V
C5	4200145	33 µF 16V	C108	4200426	1 µF 50V
C100	4010031	680 pF 10% 100V	C110	4010062	330 pF 10% 100V
C101	4130174	12 nF 10% 63V	C111	4130174	12 nF 10% 63V
C106	4200426	1 µF 50V	C112	4010021	220 pF 10% 100V

T1	8052214	Bias Osc.	P1	7220313	Connector 3 pol.
L100	8020358	15 mH	P2	7220312	Connector 2 pol.
L101	8020359	5 mH	P3	7220312	Connector 2 pol.

Power Amplifier 8002643 - PCB11

R103	5020652	390 kΩ			
R105	5011000	10 Ω			

C1	4200440	220 µF 10V	C101	4010062	330 pF 10% 100V
C2	4200429	3.3 µF 50V	C102	4200432	10 µF 35V
C3	4200429	3.3 µF 50V	C103	4200438	100 µF 10V
C4	4200429	3.3 µF 50V	C104	4200439	100 µF 35V
C5	4200576	4.7 µF 25V	C105	4130179	100 nF 20% 63V
C6	4200438	100 µF 10V	C106	4130179	100 nF 20% 63V
C100	4200429	3.3 µF 50V			

P1	7220312	Connector 2 pol.
P2	7220312	Connector 2 pol.

Power Supply 2x26V 8002644 - PCB13

R1	5230010	10 Ω PTC

C1	4010091	10 nF -20+80% 100V	C7	4200439	100 µF 50V
C2	4010091	10 nF -20+80% 100V	C8	4200442	220 µF 35V
C3	4010091	10 nF -20+80% 100V	C9	4010091	10 nF -20+80% 100V
C4	4010091	10 nF -20+80% 100V	C10	4200439	100 µF 50V
C5	4200447	3300 µF 50V	C11	4200146	3.3 µF 50V
C6	4200447	3300 µF 50V			

Power Supply 12V 8002645 - PCB14

C1	4010091	10 nF -20+80% 100V	C4	4200110	6800 µF 25V
C2	4010091	10 nF -20+80% 100V	C5	4200438	100 µF 16V
C3	4010091	10 nF -20+80% 100V	C6	4200431	10 µF 16V

Fuses Board 8002646 - PCB15

F1	6600038	5A-slow 250V IEC	F4	6600020	2.5A-slow 250V IEC
F2	6600038	5A-slow 250V IEC	F5	6600020	2.5A-slow 250V IEC
F3	6600022	1.6A-slow 250V IEC			

Mic. Ampl. & Phones etc. 8002648 - PCB18

R105	5011017	220 Ω 1/2W

C1	4200486	4.7 µF 50V	C4	4000026	22 pF 2% 63V
C2	4003136	100 pF 2% 63V	C5	4200476	0.47 50V
C3	4200443	220 µF 50V	C6	4003136	100 pF 2% 63V

P1	7220313	Connector 3 pol.
P2	7220285	Connector 3 pol.
P3	7220283	Connector 3 pol.

Phono Control Circuit & RIAA Amplifier 8005112 - PCB19

R12	5370128	100 kΩ 20%	R17	5000085	4.7 Ω 10% 1/2W
R14	5370068	22 kΩ 20%	R110	5020456	200 kΩ 1% 1/4 W
R15	5020132	43.2 kΩ 1% 1/4W	R111	5020075	36.5 kΩ 1% 1/4W

C1	4130179	100 nF 20% 63V	C40	4010063	4.7 nF 10% 63V
C2	4130179	100 nF 20% 63V	C41	4201081	10 µF 63V
C3	4130179	100 nF 20% 63V	C100	4200423	2.2 µF 50V
C4	4200461	100 µF 25V	C101	4130264	68 nF 10% 63V
C5	4010063	4.7 nF 10% 63V	C102	4000165	220 pF 5% 63V
C6	4130060	22 nF 10% 63V	C103	4000091	68 pF 5% 63V
C7	4200477	4.7 µF 25V	C104	4010065	2.7 nF 10% 63V
C8	4200477	4.7 µF 25V	C105	4130172	10 nF 10% 63V
C10	4130215	220 nF 20% 63V	C106	4200423	2.2 µF 50V

P1	7220114	Connector 5/4 pol.	P4	7220114	Connector 5/4 pol.
P2	7220145	Connector 6/5 pol.	P5	7220182	Connector 10/9 pol.
P3	7220144	Connector 9/8 pol.			

22C13	4010060	22 nF -20+80% 40V

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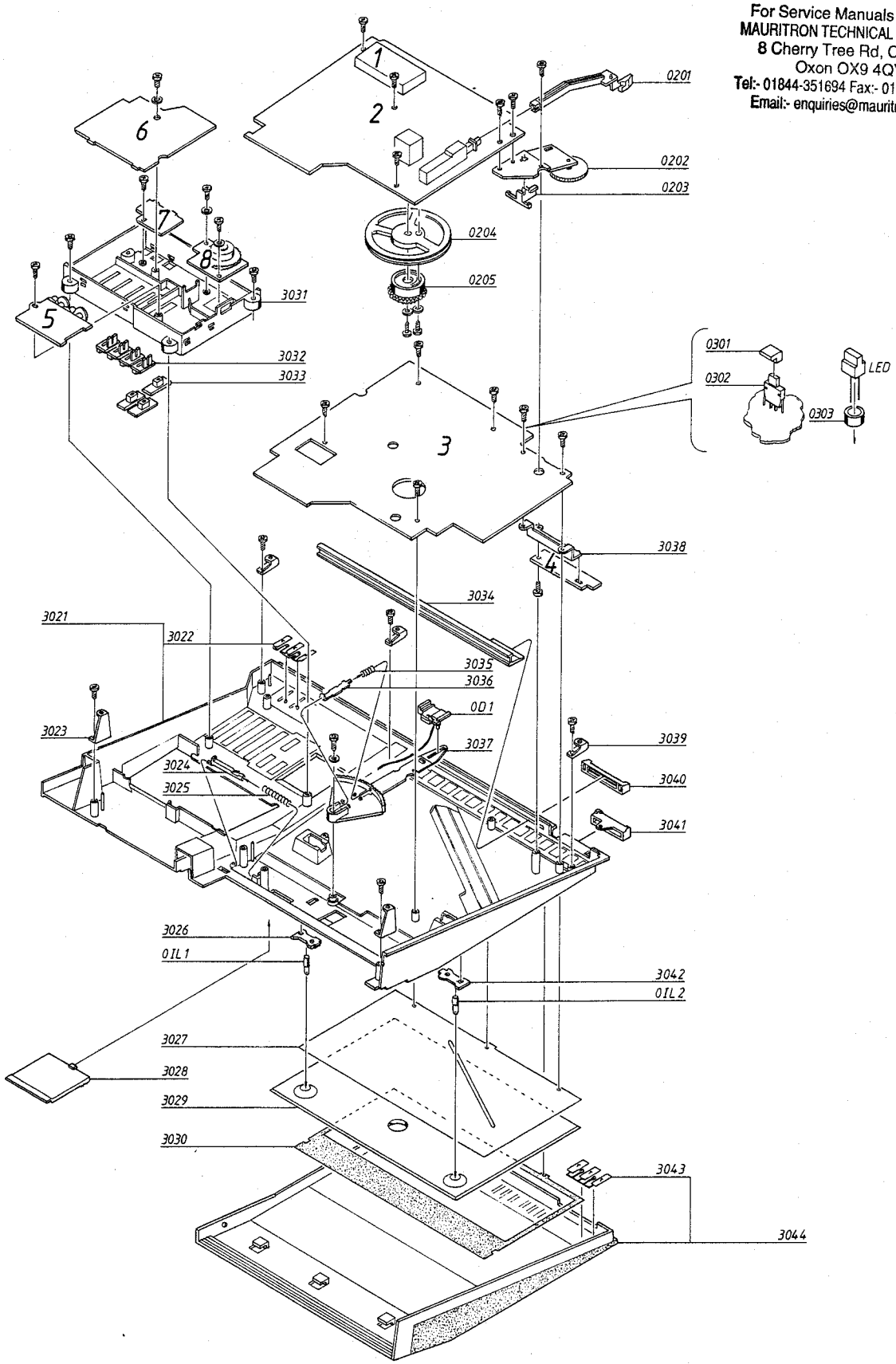

Radiodel
Radio Part

0D1	8330119	LED f/skalaviser	LED f/dial pointer
0IL1	8230048	Skalalys	Dial light
0IL2	8230048	Skalalys	Dial light
01Modul	8050417	FM-tuner	FM front end
02Modul	8002637	PCB - AM/FM/MPX	PCB - AM/FM/MPX
0201	2775954	Knap LW	Button LW
0202	2770142	Skalatræk	Dial drive
0203	3015108	Styr f/skalasnor	Guide f/dial cord
0204	2724071	Hjul	Wheel
0205	2700039	Tandhjul	Gear-wheel
	7400287	LW-MW omskifter	Switch LW-MW
	2810153	Fjeder f/skalasnor	Spring f/dial cord
	3955035	Skalasnor	Dial cord
03Modul	8002638	PCB - styrekredsløb	PCB - Control circuit
0301	2775902	Knap f/kontakt	Button f/switch
0302	7400279	Kontakt	Switch
0303	2576162	Afstandsstykke	Spacer
	6141042	PCB-skærm	PCB-screening
04Modul	8002639	PCB - P1-P4	PCB - P1-P4
	7400280	Kontakt	Switch
05Modul	8002640	PCB - FM preset	PCB - FM preset
06Modul	8002641	PCB - Sek. betjening	PCB - Sec. control
	7400289	Omskifter DOLBY/METAL/ MONO	Switch DOLBY/METAL/ MONO
	2751000	Medbringer f/skydepotentio-meter	Catch f/slide potentiometer
07Modul	8005128	PCB - Pladespiller betj.	PCB - Record player control
	7400280	Kontakt	Switch
08Modul	8002642	PCB - Volumenkontrol	PCB - Volume
	2700040	Tandhjul f/volumen	Gear-wheel f/volume
3021	3430302	Betjeningspanel	Operating panel
3022	2775959	Knapsæt	Set of buttons
3023	2542632	Vinkel	Bracket
3024	3034063	Låsestift	Locking ping
3025	2818078	Fjeder	Spring
3026	6140043	PCB	PCB
3027	3370000	Skalabaggrund	Dial back
3028	3164525	Dæksel f/preset	Cover f/preset
3029	3191000	Skalapanel	Dial panel
3030	3370115	Afmaskningsramme	Frame
3031	3168386	Holder	Housing
3032	2775958	Knap f/potentiometer	Slide f/potentiometer
3033	2775957	Knap f/omskifter	Slide f/switch
3034	2700035	Skyder f/volumen	Slide f/volume
3035	2818055	Fjeder	Spring
3036	2530477	Vinkel	Bracket
3037	2854000	Skalaviser	Dial pointer
3038	2542633	Vinkel	Bracket
3039	2542631	Vinkel	Bracket
3040	2775956	Knap f/volumen	Knob f/volume
3041	3152346	Styr	Guide
3042	6141043	PCB	PCB
3043	2775959	Knapsæt	Set of buttons
3044	3430274	Panel	Panel

Chassis

09Modul	8004369	PCB - Forforst. og Dolby	PCB - Pre-amplifier & Dolby
10Modul	8004370	PCB - Optageforst. og Bias Osc.	PCB - Rec. ampl. & Bias osc.
11Modul	8002643	PCB - Udgangsforstærker	PCB - Power amplifier
	3358194	Køleprofil	Heat-zink
	2542629	Vinekl f/opspænding	Bracket f/assembling
12Modul	8002647	PCB - Højttalerstikdåser	PCB - Loudspeaker sockets
	7210425	Stikdåse	Socket
13Modul	8002644	PCB - 2 x 26V	PCB - 2 x 26V
14Modul	8002645	PCB - 12 V	PCB - 12 V
15Modul	8002646	PCB - Sikringer	PCB - Fuses
	7200038	Sikringsholder	Holder f/fuse
18Modul	8002648	PCB - Mic./Jack stikdåser	PCB - Mic./Jack-sockets
	7210380	Stikdåse, Mic.	Socket, Mic.
	7210379	Stikdåse, PHONES	Socket, PHONES
	7210343	Stikdåse 5 pol. DIN	Socket 5 pol. DIN
	7400288	Omskifter, HT	Switch, speakers
	2775960	Knap f/HT-omskifter	Button f/Speakers-switch

3051	3168387	Dæksel	Cover
3052	2542628	Vinkel, venstre	Bracket, left
3053	2530475	Ophæng, venstre	Bracket, left
3054	2530476	Ophæng, højre	Bracket, right
3055	7210426	Stikdåse panel	Socket panel
3056	3413006	Kabinetside, grå	Cabinet side, grey
3057	3430240	Dæksel	Cover
3058	2382000	Fingermøtrik	Milled nut
3059	8002193	PCB	PCB
3060	2938182	Møtrik f/jackstikdåse	Nut f/Jack-socket
3061	2938182	Møtrik f/jackstikdåse	Nut f/Jack-socket
3062	2542627	Vinkel, højre	Bracket, right
3063	2530473	Vinkel	Bracket
3064	2542630	Vinkel	Bracket
3065	2530474	Vinkel	Bracket
3066	2775955	Knap ON-OFF	Button ON-OFF
3067	3152396	Holder	Holder
3068	3950296	Isolationsstykke	Insulating piece
3069	3170222	Isolationsstykke	Insulating piece
3070	7450075	Netafbryder	Mains switch
3071	3151220	Holder	Holder
3072	2641061	Bøsning	Bushing
3073	2641062	Lås	Lock
3074	3413002	Kabinetside, grå	Cabinet side, grey
3075	3164523	Dæksel f/sikringer	Cover f/fuses
3076	3413007	Kabinet front, grå	Cabinet front, grey
3077	3430304	Bund	Bottom

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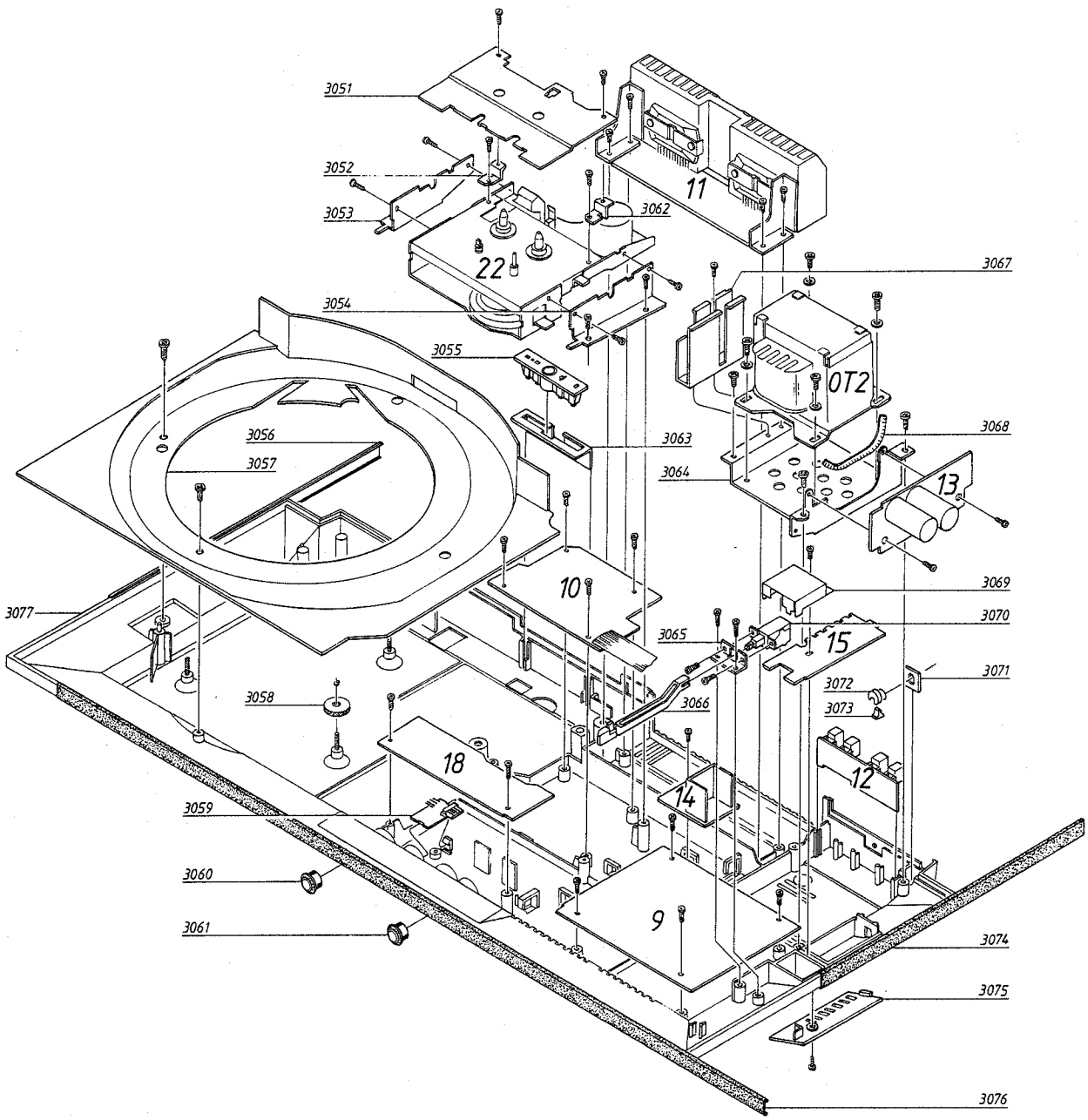

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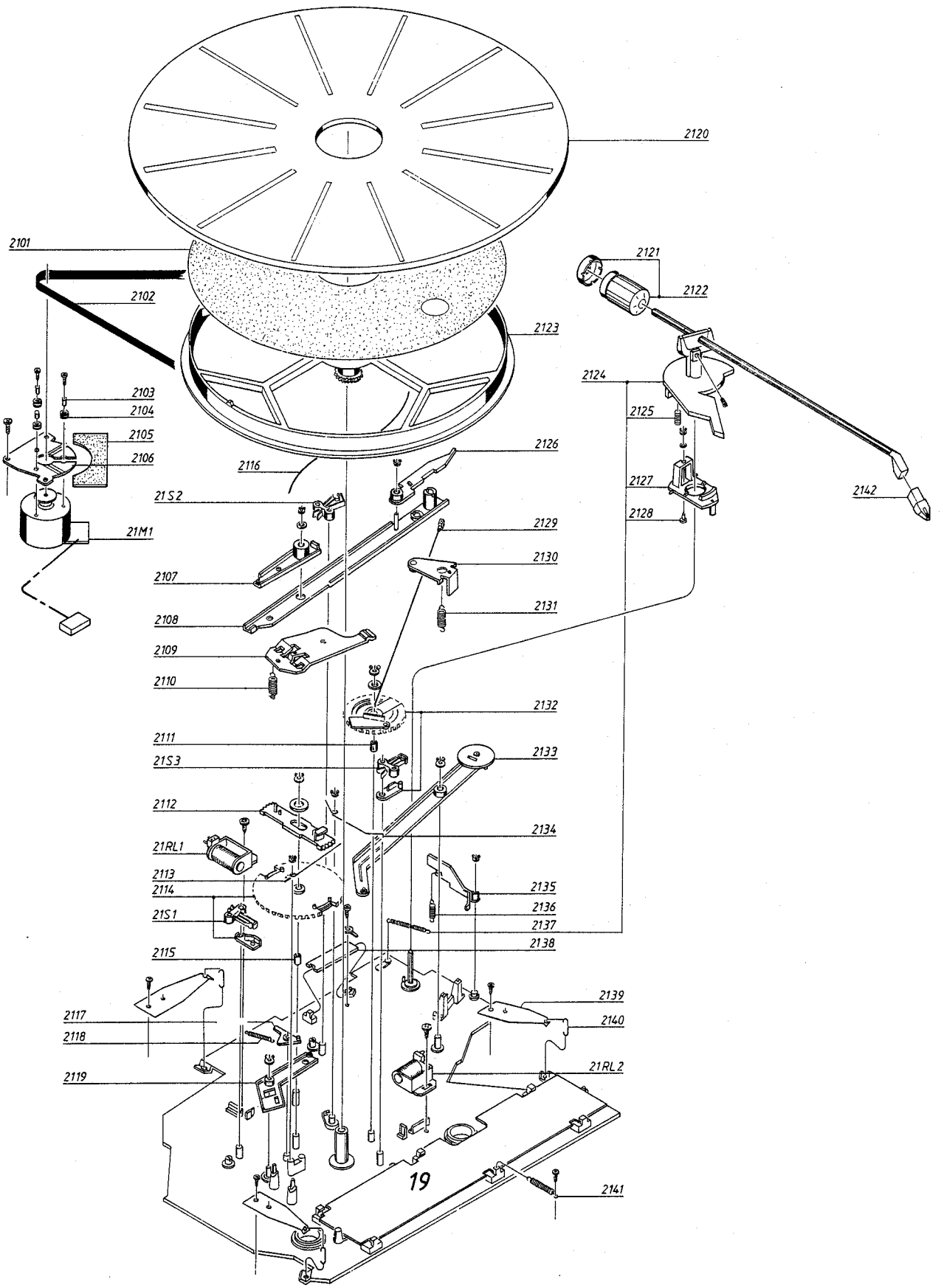

Pladespiller, svingchassis
Record Player, Floating Chassis

19Modul	8005112	PCB - styrekredsløb	PCB - Control Circuit

2101	2622361	Dækskive	Cover disc
2102	2732058	Rem	Belt
2103	2930074	Afstandsrør	Spacer
2104	2938137	Gummibøsning	Rubber bushing
2105	3170209	Isolationsstykke	Insulator
2106	3124092	Holder	Holder
2107	2854084	Arm	Lever
2108	2853093	Arm	Lever
	3947139	Isolationsstykke	Insulator
2109	2854085	Vippearm	Tilting lever
2110	2810132	Fjeder	Spring
2111	2950098	Bøsning	Bushing
2112	2700027	Tandsektion	Tooth-section
2113	2819162	Fjeder	Spring
2114	3017022	Kurvehjul	Camwheel
2115	2950096	Bøsning	Bushing
2116	2819161	Fjeder	Spring
2117	3010019	Arm	Lever
2118	2810138	Fjeder	Spring
2119	2854086	Arm	Lever
2120	2726139	Pladetallerken	Platter
2121	2622353	Skala f/nåletryk	Dial f/tracking force
2122	3342088	Kontravægt	Counterweight
2123	2794092	Svingring	Fly-wheel
2124	2850127	Pickup arm, komplet	Tonearm, assembled
	2542626	Transportsikring pickuparm	Transit protection f/tonearm
2125	2812094	Fjeder	Spring
2126	2854088	Arm	Lever
2127	2627011	Holder	Holder
2128	2627012	Justeretap	Adjustment pin
2129	2570067	Stang, samlet	Connecting rod, assembled
2130	2542612	Vippearm	Tilting lever
2131	2810133	Fjeder	Spring
2132	3017021	Kurvehjul	Camwheel
2133	2852044	Arm	Lever
2134	2819163	Fjeder	Spring
2135	2542609	Arm	Lever
2136	2810090	Fjeder	Spring
2137	2810139	Fjeder	Spring
2138	6140008	PCB	PCB
2139	2815016	Bladfjeder	Leaf spring
2140	2514035	Krog f/ophæng	Suspension hook
2141	2810140	Fjeder	Spring
2142	8954890	Pickup MMC5-R	Pick-up MMC5-R

21M1	8400119	Motor	Motor
21RL1	8020412	Sugespole	Solenoid
21RL2	8020412	Sugespole	Solenoid
21S1	7402081	Mikroomskifter	Micro-switch
21S2	7402081	Mikroomskifter	Micro-switch
21S3	7402081	Mikroomskifter	Micro-switch

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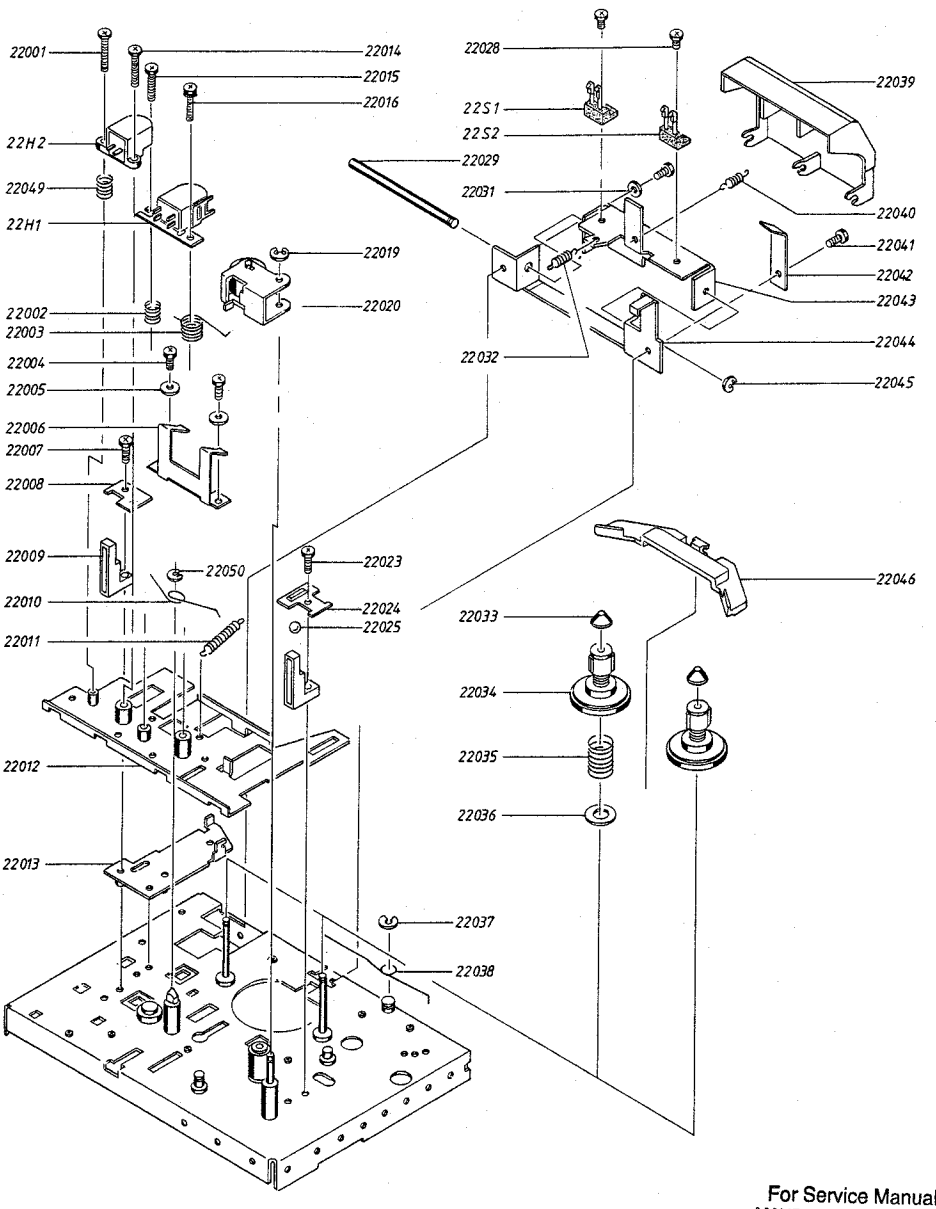
CC-løbeværk
CC-Deck

22001	2034068	Skrue 2 x 5	Screw 2 x 5
22002	2812800	Fjeder	Spring
22003	2818000	Fjeder	Spring
22004	2036019	Skrue 2,6 x 4	Screw 2.6 x 4
22005	2622357	Skive	Washer
22006	2816281	Bladfjeder	Leaf spring
22007	2039050	Skrue 2,6 x 6	Screw 2.6 x 6
22008	2816280	Bladfjeder	Leaf spring
22009	3010000	Styr	Guide
22010	2819181	Fjeder	Spring
22011	2810146	Fjeder	Spring
22012	3112293	Holder	Holder
22013	3112186	Vinkel	Bracket
22014	2034063	Skrue 2 x 5	Screw 2 x 5
22015	2034068	Skrue 2 x 5	Screw 2 x 5
22016	2036042	Skrue 2 x 5, sort	Screw 2 x 5, black
22019	2390073	E-ring 2,5	E-ring 2.5
22020	2794099	Trykrulle komplet	Thrust roller
22023	2039050	Skrue 2,6 x 6	Screw 2.6 x 6
22024	2816207	Bladfjeder	Leaf spring
22025	2917020	Kugle ø2	Ball ø2
22028	2034067	Skrue 2 x 4	Screw 2 x 4
22029	2831000	Aksel	Shaft
22031	2622358	Skive 3	Washer 3
22032	2810148	Fjeder	Spring
22033	3164547	Dæksel	Cover
22034	2726002	Spoletallerken	Supply reel
22035	2812096	Fjeder	Spring
22036	2622343	Skive	Washer
22037	2390090	E-ring 2,5	E-ring 2.5
22038	2819183	Fjeder	Spring
22039	3164548	Hus	Housing
22040	2810149	Fjeder	Spring
22041	2039039	Skrue 3 x 4	Screw 3 x 4
22042	2816208	Bladfjeder	Leaf spring
22043	2548205	Vinkel	Bracket
22044	2548206	Vinkel	Bracket
22045	2390056	E-ring 1,5	E-ring 1.5
22046	2851134	Bremsearm	Brake lever
22049	2812000	Fjeder	Spring
22050	2390064	E-ring 5	E-ring 5

22H1	8600072	Tonehoved	Tape head
22H2	8600073	Slettehoved	Erase head

22S1	7400286	Omskifter	Switch
22S2	7400298	Omskifter	Switch

22P2	6275123	Ledning/slettehoved	Wires/Erase head
22P6	6275101	Ledning/tonehoved - hvid	Wires/Tape head - white
22P7	6275099	Ledning/tonehoved - rød	Wires/Tape head - red



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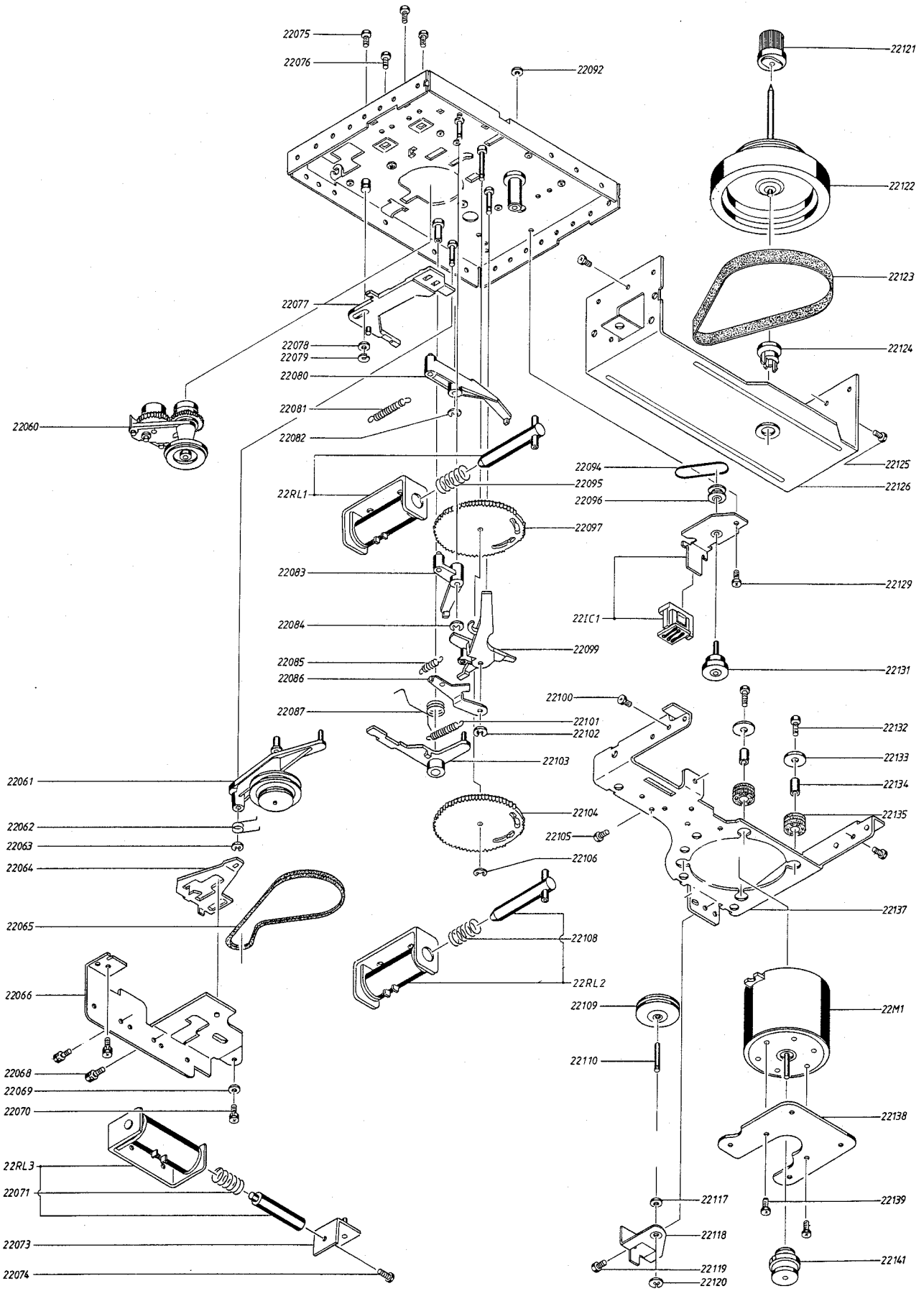

22060	2794098	Kobling	Clutch
22061	2750000	Kobling	Clutch
22062	2819182	Fjeder	Spring
22063	2390090	E-ring 2,5	E-ring 2.5
22064	3014005	Arm	Arm
22065	2732000	Rem	Belt
22066	2542620	Vinkel	Bracket
22068	2038063	Skrue 3 x 5, sort	Screw 3 x 5, black
22069	2622132	Skive 2,8	Washer 2.8
22070	2036022	Skrue 2,6 x 5, sort	Screw 2.6 x 5, black
22071	2812152	Fjeder	Spring
22073	2530466	Vinkel	Bracket
22074	2038063	Skrue 3 x 5, sort	Screw 3 x 5, black
22075	2039043	Skrue 3 x 4	Screw 3 x 4
22076	2039043	Skrue 3 x 4	Screw 3 x 4
22077	2851135	Arm	Arm
22078	2622293	Skive	Washer
22079	2390053	E-ring 3	E-ring 3
22080	2851136	Arm	Arm
22081	2810147	Fjeder	Spring
22082	2390073	E-ring 2,5	E-ring 2.5
22083	2851137	Arm	Arm
22084	2390073	E-ring 2,5	E-ring 2.5
22085	2810150	Fjeder	Spring
22086	2851131	Arm	Arm
22087	2819184	Fjeder	Spring
22092	2622296	Skive	Washer
22094	2732039	Rem	Belt
22095	2812097	Fjeder	Spring
22096	2724070	Remskive	Pulley
22097	2700037	Kurvehjul	Cam-wheel
22099	2851138	Arm	Arm
22100	2039049	Skrue 3 x 5	Screw 3 x 5
22101	2810151	Fjeder	Spring
22102	2390073	E-ring 2,5	E-ring 2.5
22103	2851133	Arm	Arm
22104	2700038	Kurvehjul	Cam-wheel
22105	2039049	Skrue 3 x 5	Screw 3 x 5
22106	2390073	E-ring 2,5	E-ring 2.5
22108	2812097	Fjeder	Spring
22109	2804000	Remskive	Pulley
22110	2831047	Aksel	Shaft
22117	2622299	Skive 2,1	Washer 2.1
22118	2530467	Vinkel	Bracket
22119	2036022	Skrue 2,6 x 5, sort	Screw 2.6 x 5, black
22120	2390056	E-ring 1,5	E-ring 1.5
22121	2700036	Gearhjul	Gear-wheel
22122	2794096	Svinghjul	Fly-wheel
22123	2732064	Rem	Belt
22124	2905078	Bundleje	Bearing
22125	2039049	Skrue 3 x 5	Screw 3 x 5
22126	3112295	Vinkel	Bracket
22129	2039049	Skrue 3 x 5	Screw 3 x 5
22131	3356044	Magnet	Magnet
22132	2036044	Skrue 2,6 x 10, sort	Screw 2.6 x 10, black
22133	2622282	Skive 6,1	Washer 6.1
22134	2932046	Bøsning	Bushing
22135	2932000	Gummibøsning	Rubber bushing
22137	3112294	Vinkel	Bracket
22138	3122054	Motorophæng	Motor suspension
22139	2036021	Skrue 2,6 x 3	Screw 2.6 x 3
22141	2722028	Remskive	Pulley

22RL1	6840033	Sugespole	Solenoid
22RL2	6840033	Sugespole	Solenoid
22RL3	6840034	Sugespole	Solenoid
22IC1	8004007	IC m/holder	IC w/holder
22M1	8400000	Motor	Motor

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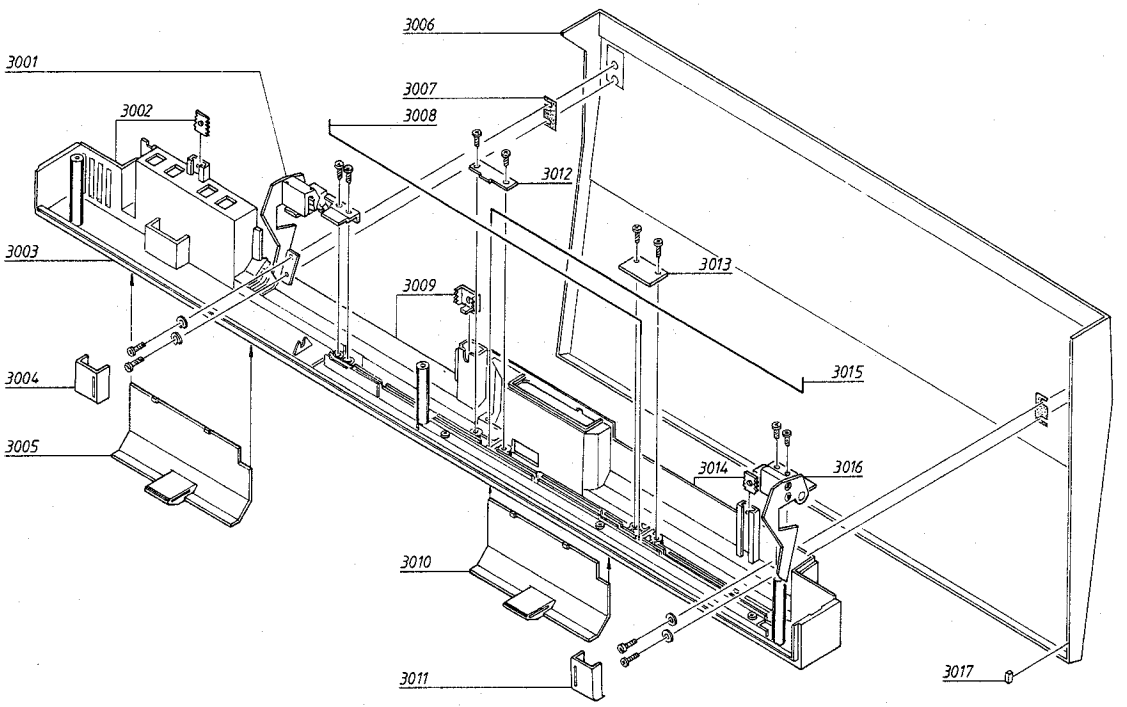
Støvlåg
Dust Cover



3001	3030080	Hængsel, højre	Hinge, right
3002	2389073	Gevindstykke	Nut
3003	3430303	Bagstykke	Rear panel
3004	3164522	Dæksel, højre	Cover right
3005	3164524	Dæksel	Cover
3006	3164526	Støvlåg	Dust cover
3007	2641107	Spændestykke	Spacer
3008	2819188	Torsionsfjeder, højre	Torsionspring, right
3009	2389074	Gevindstykke	Nut
3010	3164524	Dæksel	Cover
3011	3164402	Dæksel, venstre	Cover, left
3012	2641109	Spændestykke	Clamp
3013	2641108	Spændestykke	Clamp
3015	2819168	Torsionsfjeder, venstre	Torsionspring, left
3016	3030079	Hængsel, venstre	Hinge, left
3017	3035037	Fod	Foot

Outlines / Metric Dimensions											
2.3											2390001
M2.6 x 6	2036016										
2.9										2624045	
M3 x 5	2039020										
3 x 5 self tapping	2013098										
M3 x 6	2039027					2070035					
3 x 6 self tapping	2013906		2013200								
M3 x 8	2039028										
3 x 9 self tapping	2013104	2013080									
M3 x 10	2039030			2039038							
3 x 12 self tapping	2013032										
3									2390088		
3.2							2624007			2624013	
M4 x 6	2043020										
4 x 12 self tapping		2019204									
M4 x 27 Special	2043029										
4									2390006		
4.1								2622338			
4.3								2622024			
M4					2380016						

Ikke viste dele
Parts not shown

3532159	Diagramhæfte	Diagram folder
3180994	Mærkat f/bund SPEAKERS/ DOLBY	Label f/bottom SPEAKERS/ DOLBY
3180995	Mærkat f/bund 2421 (220V)	Label f/bottom 2421 (220V)
3180996	Mærkat f/bund 2422 (240V)	Label f/bottom 2422 (240V)
3397517	Emballagesæt	Set of packing
3917072	Skumklods f/PU-arm	Foam block f/tonearm
3391752	Yderæske	Outer carton
6271115	Netledning 2421/22	Mains cord 2421/22
6271091	Netledning 2425	Mains cord 2425

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JUSTERINGER, RADIO

AM-MF

Modtageren indstilles på f.eks. 1600 kHz.

Sweepgenerator indstilles til 468 kHz og tilsluttes antenneindgangen.

Oscilloskop tilsluttes 2TP4. 2L5 og 2L6 justeres til max. og symmetrisk MF kurve.

Med 2L7 justeres til max.

ADJUSTMENTS, RADIO

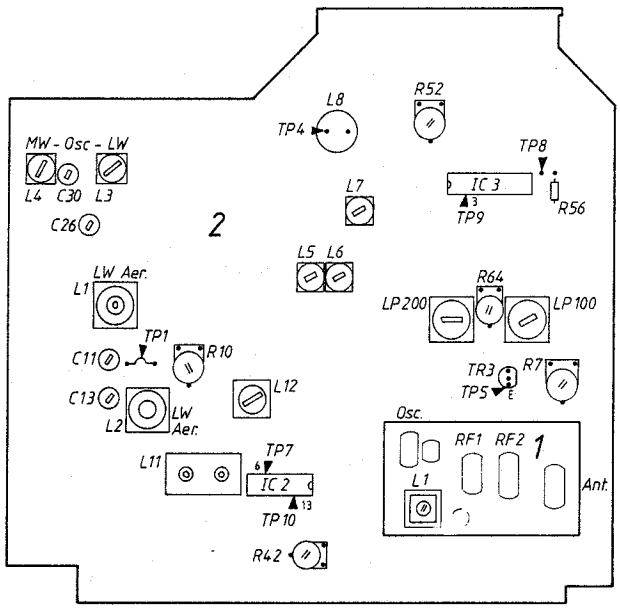
AM-IF

Set the receiver at, e.g., 1600 kHz.

Set the sweep generator at 468 kHz and connect to the aerial input.

Connect an oscilloscope to 2TP4. Adjust 2L5 and 2L6 to max. and symmetrical IF curve.

Adjust with 2L7 to max. output.



MW oscillator og antennekreds

Målesender tilsluttes antenneindgangen, via kunstantenne, og indstilles til 590 kHz mod. 30% 400 Hz.

Modtageren indstilles på 590 kHz.

Wattmeter eller AC meter tilsluttes udgangen.

Med 2L4 justeres oscillatoren på plads.

Med 2L2 justeres antennekredsen til max.

Modtageren og målesender indstilles til 1500 kHz.

Med 2C30 justeres oscillatoren på plads.

Med 2C13 justeres antennekredsen til max.

LW oscillator og antennekreds

Modtager og målesender indstilles til 150 kHz.

Med 2L3 justeres oscillatoren på plads.

Med 2L1 justeres antennekredsen til max. output.

Modtager og målesender indstilles til 350 kHz.

Med 2C26 justeres oscillatoren på plads.

Med 2C11 justeres antennekredsen til max. output.

MW Oscillator and Aerial Circuits

Connect a signal generator, via dummy aerial and set at 590 kHz mod. 30% 400 Hz.

Set the receiver at 590 kHz.

Connect a wattmeter or an AC meter to the output.

Adjust the oscillator dead on with 2L4.

Adjust the aerial circuit to max. with 2L2.

Set the receiver and the signal generator at 1500 kHz.

Adjust the oscillator dead on with 2C30.

Adjust the aerial circuit to max. with 2C13.

LW Oscillator and Aerial Circuit

Set the receiver and the signal generator at 150 kHz.

Adjust the oscillator dead on with 2L3.

Adjust the aerial circuit to max. output.

Adjust the receiver and the signal generator to 350 kHz.

Adjust the oscillator dead on with 2C26.

Adjust the aerial circuit to max. output with 2C11.

Afstemningsspænding (skalapasning)

FM målesender tilsluttes antenneindgangen. FM aktiveres.

Skydeomskifter sættes i stilling Mono (-AFC).

Skalaviseren drejes ud til mekansik stop i højre side.

Målesenderen indstilles til 108,5 MHz.

Med 2R7 justeres, så modtagerfrekvensen også er 108,5 MHz.

Skalaviseren drejes til mekanisk stop i venstre side.

Målesenderen indstilles til 87,4 MHz.

Med 2R10 justeres, så modtagerfrekvensen også er 87,4 MHz.

Tuning Voltage (Dial Calibration)

Connect an FM signal generator to the aerial input. Activate FM.

Set the sliding switch in mono mode (-AFC).

Move the dial pointer to its mechanical right hand stop.

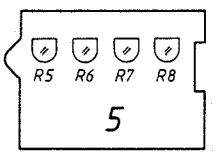
Set the signal generator at 108.5 MHz.

Adjust with 2R7 until the receiver frequency is also 108.5 MHz.

Move the dial pointer to its mechanical left-hand stop.

Set the signal generator at 87.4 MHz.

Adjust with 2R10 until the receiver frequency is also 87.4 MHz.



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P1 aktiveres, skalaen for P1 drejes i minimum.

5R5 justeres til modtagerfrekvensen er 87,4 MHz.

P2 aktiveres, skalaen for P2 drejes i minimum.

5R6 justeres til modtagerfrekvensen er 87,4 MHz.

P3 aktiveres, skalaen for P3 drejes i minimum.

5R7 justeres til modtagerfrekvensen er 87,4 MHz.

P4 aktiveres, skalaen for P4 drejes i minimum.

5R8 justeres til modtagerfrekvensen er 87,4 MHz.

Activate P1; turn the P1 dial to min.

Adjust with 5R5 until the receiver frequency is 87.4 MHz.

Activate P2; turn the P2 dial to min.

Adjust with 5R6 until the receiver frequency is 87.4 MHz.

Activate P3; turn the P3 dial to min.

Adjust with 5R7 until the receiver frequency is 87.4 MHz.

Activate P4; turn the P4 dial to min.

Adjust with 5R8 until the receiver frequency is 87.4 MHz.

Tuner

Skala indstilles på 94 MHz.

Sweepgenerator tilsluttes antenneindgangen og indstilles til 94 MHz.

Oscilloscop tilsluttes til 2TP10.

Med 1ANT, 1RF1, 1RF2, 1L1 og 1osc. justeres til max. og symmetrisk MF kurve.

Det kontrolleres, at modtageren dækker frekvensområdet 87,5 MHz – 108 MHz.

Luftspolerne justeres ved at øge eller mindske afstanden mellem vindingerne.

Front End

Set the dial at 94 MHz.

Connect a sweep generator to the aerial input and set it to 94 MHz.

Connect an oscilloscope to 2TP10.

Adjust to max. output and symmetrical IF curve with 1ANT, 1RF1, 1RF2, 1L1 and 1 osc.

Check that the receiver covers the frequency range 87.5 – 108 Mhz.

The air coils are adjustable by increasing or decreasing the spacing between the windings.

MF og detektor

Skala og sweepgenerator indstilles på 94 MHz.

Oscilloscop tilsluttes via en RC probe til 2TP7.

Med spolekernerne i 2L11 justeres til max. og symmetrisk S-kurve.

Muting

Målesender tilsluttes antenneindgangen og indstilles til 97 MHz.

Skala indstilles til 97 MHz FM mono omsk. på auto.

Med 2R42 justeres indtil muting træder i kraft ved 2μV.

114 kHz filter

Tonegenerator indstilles på 114 kHz og tilsluttes 2TP7.

LF voltmeter tilsluttes 2IC3 ben 3 (2TP9).

2L12 justeres til minimum udslag på LF voltmeter.

IF and Detector

Set dial and sweep generator to 94 MHz.

Connect an oscilloscope, via an RC probe, to 2TP7.

Adjust with the coil cores of 2L11 to max. output and symmetrical S-curve.

Muting

Connect the signal generator to the aerial input and set it at 97 MHz.

Set the dial at 97 MHz and the mono switch in auto mode.

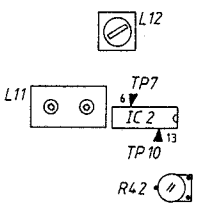
Adjust with 2R42 until muting occurs at 2 μV.

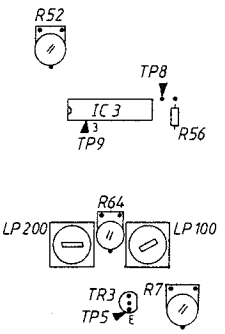
114 kHz Filter

Set an audio oscillator to 114 kHz and connect it to 2TP7.

Connect an AF voltmeter to pin 3 on 2IC3 (2TP9).

Adjust with 2L12 until min. deflection on the AF voltmeter.





Stereodekoder

Modtager indstilles på en mono station.

2TP8 kortsluttes til 2R56.

Frekvenstæller tilsluttes 2TP8.

2R52 justeres til 19 kHz ±50 Hz.

Kanalseparation

FM stereo signal-generator tilsluttes antenneindgang.

Wattmeter eller AC voltmeter tilsluttes LF udgangen.

Med 2R64 justeres til max. kanal separation (bedre end 32 dB).

Stereo Decoder

Tune the receiver to a mono station.

Short-circuit 2TP8 to 2R56.

Connect a frequency counter to 2TP8.

Adjust 2R52 until a reading of 19 kHz ±50 Hz is obtained.

Channel Separation

Connect a FM stereo signal generator to the aerial input.

Connect a wattmeter or an AC voltmeter to the AF output.

Adjust with 2R64 for max. channel separation (better than 32 dB).

JUSTERINGER BÅNDOPTAGER

ELEKTRISKE JUSTERINGER

Henvisninger er for højre kanal (henvisningerne i parantes er for venstre kanal). Elektriske justeringer foretages med TAPE omskifter i stilling AUTO, og uden DOLBY NR hvis ikke andet er nævnt.

Azimuth

Tonehoved og slettehoved afmagnetiseres.

LF voltmeter tilsluttes 9TP1 (9TP2).

Azimuthbånd 6780036 ilægges.

Play aktiveres.

Skruen A justeres til max. og til ens output for højre og venstre kanal (middelværdi 9TP1 (9TP2)).

Hastighed

Wow bånd 6780037 ilægges.

Med potentiometer B i motoren justeres til korrekt hastighed aflæst på et wow-meters driftmeter i 9TP1.

Justeringen foretages midt på båndet.

Gengiveniveau

Justering af gengiveniveau er her beskrevet efter to normbånd.

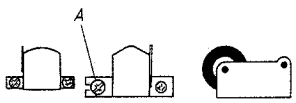
1. DIN standard, 250 pWb mm.
2. Dolby level, 200 pWb mm.

ADJUSTMENTS, TAPE RECORDER

ELECTRICAL ADJUSTMENTS

The instructions refer to the right-hand channel (those in parentheses refer to the left-hand channel). Make the electrical adjustments with the TAPE switch in AUTO mode and without DOLBY NR activated, if not otherwise instructed.

Azimuth



Degauss tape head and erases head.

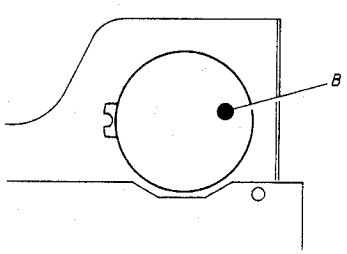
Connect an AF voltmeter to 9TP1 (9TP2).

Load azimuth tape 6780036.

Activate Play.

Adjust the screw A until max. and equal outputs are obtained in both right-hand and left-hand channels (mean value 9TP1 (9TP2)).

Speed



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Load wow tape 6780037.

Adjust with potentiometer B in the motor for correct speed as read on the drift meter of a wow meter in 9TP1.

Make this adjustment in a mid-tape position.

Playback Level

The explanations for adjustments of playback level apply in this case to two types of level tapes.

1. DIN standard, 250 pWb mm.
2. Dolby level, 200 pWb mm.

1. Pegel bånd 6780035 ilægges. LF voltmeter tilsluttes 9TP1 (9TP2).

   9R114 (9R214) justeres til der måles 660 millivolt i 9TR1 (9TP2).

2. Dolby level calibration bånd MTT-150R ilægges. LF voltmeter tilsluttes 9TP1 (9TP2).

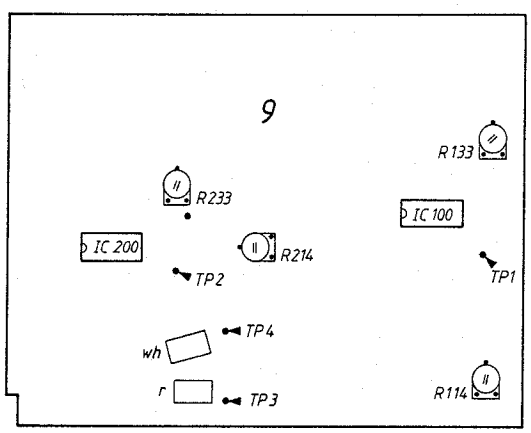
   9R114 (9R214) justeres til der måles 580 millivolt i 9TP1 (9TP2).

1. Load level tape 6780035. Connect an AF voltmeter to 9TP1 (9TP2).

   Adjust with 9R114 (9R214) until a reading of 660 mV is obtained in 9TP1 (9TP2).

2. Load Dolby level calibration tape MTT-150R. Connect an AF voltmeter to 9TP1 (9TP2).

   Adjust with 9R114 (9R214) until a reading of 580 mV is obtained in 9TP1 (9TP2).



PPM

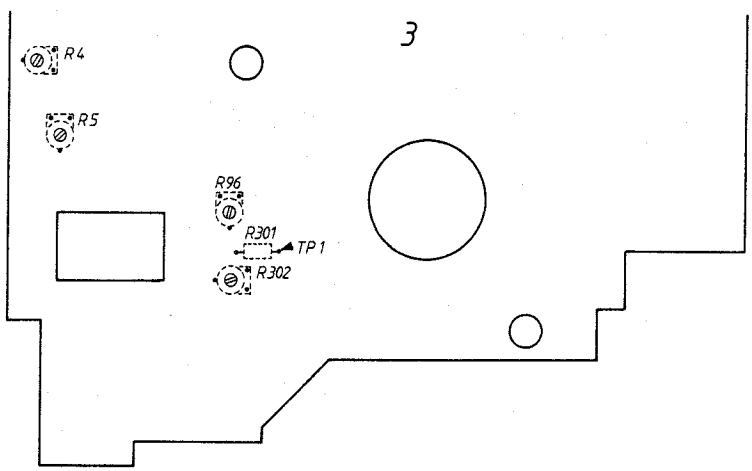
Tonegenerator tilsluttes tape copy indgangen og indstilles til at afgive 200 mV 333 Hz.

Rec. pause aktiveres, og rec. potentiometeret indstilles til der måles 580 mV i 9TP1 (9TP2).

PPM

Connect an audio oscillator to the tape copy input and set it to yield 220 mV 333 Hz.

Activate Rec. pause and adjust the record potentiometer until a reading of 580 mV is obtained in 9TP1 (9TP2).



3R5 justeres til LED'en for 0 dB netop lyser.

Tonegenerator afbrydes.

3R4 justeres til LED'en for -20 dB netop ikke lyser.

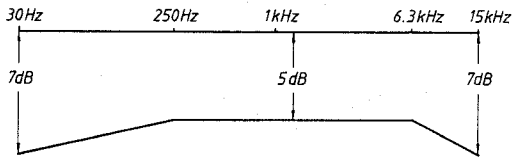
Adjust with 3R5 until the LED for 0 dB just starts glowing.

Disconnect the audio oscillator.

Adjust with 3R4 until the LED for -20 dB just ceases to glow.

Gengive frekvensgang

Playback Frequency Curve



Gengivefrekvensgang afprøves med testbånd 6780056 til at ligge indenfor ovenstående ramme målt i 9TP1 (9TP2).

Test the playback frequency curve with test tape 6780056, and it shall be within the above limits as measured in 9TP1 (9TP2).

Bias oscillator

Frekvenstæller eller oscilloskop tilsluttes over slettehovedet.

Rec. pause aktiveres.

Det kontrolleres at frekvensen er 105 kHz ±3 kHz.

Eventuel justering foretages med kernen i 10T1.

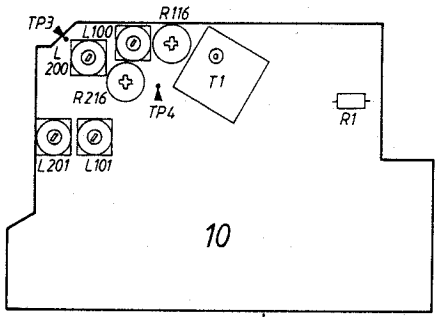
Bias Oscillator

Connect a frequency counter or an oscilloscope across the erase head.

Activate Rec. pause.

Check that the frequency is 105 kHz ±3 kHz.

Adjust, if necessary, with the core in 10T1.



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Bias filter

Sæt tape omskifter i stilling metal.

Sæt record level potentiometer på 0.

Rec. pause aktiveres.

10L100 (10L200) justeres til minimum udslag målt med LF-voltmeter i 10TP4 (10TP3).

Bias Filter

Set the tape switch in MET mode.

Set the record level potentiometer at 0.

Activate Rec. pause.

Adjust 10L100 (10L200) until min. deflection on an AF voltmeter in 10TP4 (10TP3).

Optagehæv

Bias oscillatoren stoppes ved at afbryde 10R1.

Sæt tape omskifter i stilling AUTO.

CrO_2 bånd ilægges.

Rec. pause aktiveres.

Tonegenerator tilsluttes tape copy indgangen, og indstilles til at afgive 333 Hz i 1 volt området.

Record potentiometer indstilles til der måles 3 mV med LF voltmeter i 9TP3 (9TP4).

Tonegenerator indstilles til 10 kHz.

Record Lift

Stop the bias oscillator by disconnecting 10R1.

Set the tape switch in AUTO mode.

Load a CrO_2 tape.

Activate Rec. pause.

Connect an audio oscillator to the tape copy input and set it to yield 333 Hz in the 1 V range.

Adjust the record potentiometer until a reading on the AF voltmeter of 3 mV is obtained in 9TP3 (9TP4).

Set the audio oscillator at 10 kHz.

10L101 (10L201) justeres til der måles 7 mV i 9TP5 (9TP4).

Bias oscillatoren startes.

Bias

Fe_2O_3 bånd ilægges (B&O norm bånd 6780067).

Sæt tape omskifter i stilling AUTO.

Record pause aktiveres.

Record level potentiometer sættes på 0.

Adjust 10L101 (10L201) until a reading of 7 mV is obtained in 9TP3 (9TP4).

Start the bias oscillator.

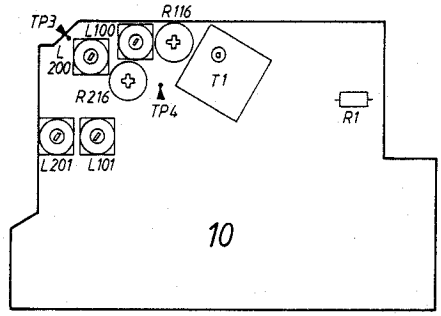
Bias

Load tape Fe_2O_3 (Bang & Olufsen's standard tape 6780067).

Set the tape switch in AUTO mode.

Activate Rec. pause.

Set the record level potentiometer at 0.



10R116 (10R216) justeres til der måles 12 mV i 9TP3 (9TP4) med LF voltmeter.

CrO_2 bånd ilægges (B&O norm bånd 6780066).

Kontroller at spændingen i 9TP3 (9TP4) nu er ca. 20 mV.

Sæt omskifter i MET.

Metal bånd ilægges (B&O norm bånd 6780085).

Kontroller at spændigen i 9TP3 (9TP4) nu er ca. 35 mV.

Adjust with 10R116 (10R216) until a reading of 12 mV is obtained in 9TP3 (9TP4) on the AF voltmeter.

Load CrO_2 tape (Bang & Olufsen's standard tape 6780066).

Check that the voltage in 9TP3 (9TP4) is now approx. 20 mV.

Set the tape switch in MET mode.

Load metal tape (Bang & Olufsen's standard tape 6780085).

Check that the voltage in 9TP3 (9TP4) is now approx. 35 mV.

Optagestrøm CrO_2

CrO_2 normbånd ilægges (6780066).

Sæt tape omskifter i stilling AUTO.

Tonegenerator tilsluttes TAPE-COPY indgangen og indstilles til 333 Hz 1 V.

Record pause aktivers.

Record level potentiometeret indstilles til der måles 580 mV med LF voltmeter i 9TP1 (9TP2).

Ved henholdsvis at optage og gengive 333 Hz justeres 9R123 (9R233) til der måles 580 mV i 9TP1 (9TP2) både ved optagelse og gengive.

Recording Current CrO_2

Load CrO_2 tape (6780066).

Set the tape switch in AUTO mode.

Connect an audio oscillator to the TAPE-COPY input and adjust it to yield 333 Hz 1 V.

Activate Rec. pause.

Adjust the record level potentiometer until a reading of 580 mV is obtained on an AF voltmeter in 9TP1 (9TP2).

Adjust 9R133 (9R233), while alternatingly recording and playing back 333 Hz until a reading of 580 mV is obtained in 9TP1 (9TP2) both during recording and playing back.

Fe_2O_3 norm bånd ilægges (6780067).

Kontroller at der måles 580 mV ±1,5 dB i 9TP1 (9TP2) ved gengivelse.

Sæt tape omskifter i stilling MET.

Metal norm bånd ilægges (6780085).

Kontroller at der måles 580 mV ±1,5 dB i 9TP1 (9TP2) ved gengivelse.

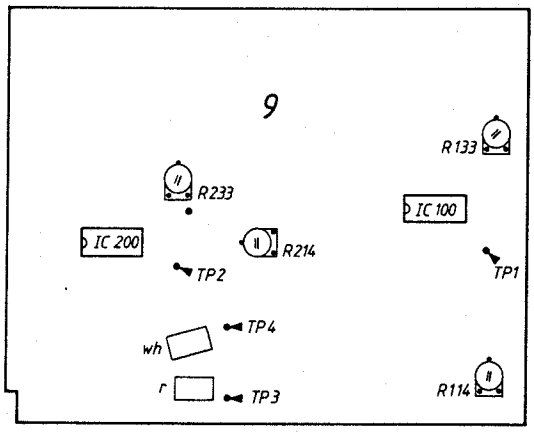
Load Fe_2O_3 standard tape (6780067).

Check that during playback a reading of 580 mV ±1.5 dB is obtained in 9TP1 (9TP2).

Set the tape switch in MET mode.

Load metal standard tape (6780085).

Check that during playback a reading of 580 mV ±1.5 dB is obtained in 9TP1 (9TP2).



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Frekvensgangkontrol

333 Hz, 5 kHz og 15 kHz indspilles ved et optageniveay på -30 dB under 0 dB VU (0 dB VU = 580 mV i 9TP1 (9TP2)).

Ved gengivelse tolereres niveauforskelle på 3 dB i hver kanal, målt i 9TP1 (9TP2).

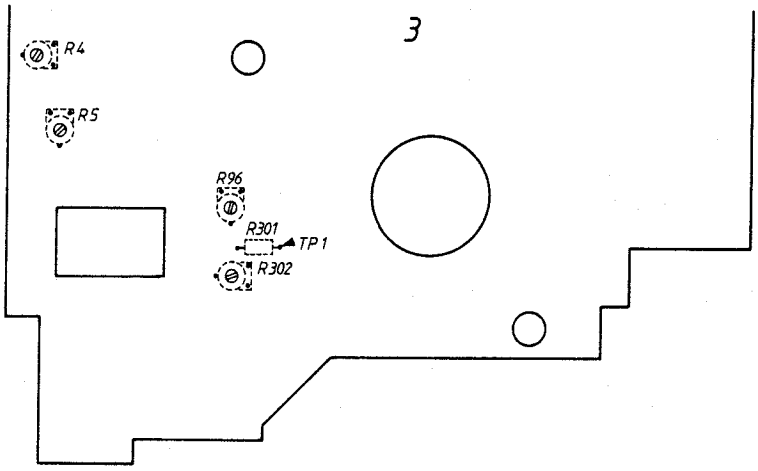
Frequency Curve Check

Record 333 Hz, 5 kHz and 15 kHz at a recording level of -30 dB below 0 dB VU (0 dB VU = 580 mV in 9TP1 (9TP2)).

During playback a level difference of 3 dB is tolerated in either channel, as measured in 9TP1 (9TP2).

Next

Next



Følsomhed

Tonegenerator indstilles til 333 Hz og tilsluttes tape copy indgangen.

Record pause aktiveres.

Record potentiometrene indstilles, til der måles 580 mV i 9TP1 (9TP2).

Sensitivity

Set the audio oscillator at 333 Hz and connect it to the tape copy input.

Activate Rec. pause.

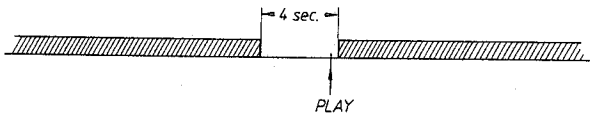
Adjust the record potentiometers until a reading of 580 mV is obtained in 9TP1 (9TP2).

Signalet dæmpes 24 dB (36 mV i 9TP1 (9TP2)).

Med 3R302 justeres til 32 mV i 3TP1.

Attenuate the signal by 24 dB. (36 mV in 9TP1 (9TP2)).

Adjust with 3R302 until a reading of 32 mV is obtained in 3TP1.



Pause

333 Hz indspilles til 0 VU på sidste halvdel af båndet.

Record potentiometret stilles på 0.

Der slettes et stykke på 4 sek. midt på det indspillede.

Båndoptageren stilles i stilling PLAY, og NEXT tasten aktiveres.

3R96 justeres således, at apparatet lige netop går i stilling PLAY ved pausen på 4 sek. (4 sek. pause = ca. midterstilling på 3R96).

Pause

Record 333 Hz to 0 VU on the latter half of the tape.

Set the record potentiometer at 0.

Erase a 4-second section somewhere in the middle of the recording.

Set the tape recorder in PLAY mode and activate the NEXT key.

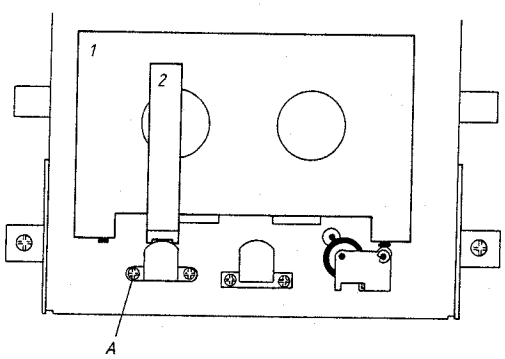
Adjust 3R96 so that the tape recorder just goes into PLAY mode at the 4-second pause (4-second pause = near the mid-setting on 3R96).

MEKANISKE JUSTERINGER

Højde, tonehoveder

MECHANICAL ADJUSTMENTS

Height, Tape Heads



Højde slettehoved justering foretages med justereværktøj 1 og 2 fra justereværktøjssæt 3624020.

Justerværktøj lægges i kassetteholderen som vist.

Tonehovedbroen presses forsigtigt ind mod værktøj 2.

Med skruen A justeres til båndstyret går ind over værktøj 2.

Højden på tonehovedet kontrolleres ligeledes med værktøj 2.

Erase head adjustments are made by means of the adjustment tools 1 and 2 of the adjustment tool kit 3624020.

Place the adjustment tool in the cassette holder as shown.

Press the tape head bridge carefully until it touches tool 2.

Adjust with the screw A until the tape guide just starts to cover tool 2.

The tape head height is also controlled with tool 2.

Der kan korrigeres for højdefejl v.h.a. skiven under opspændingerne til hovederne.

Følgende skiver kan benyttes:

2624052	0,1 mm
2624053	0,2 mm
2624054	0,3 mm

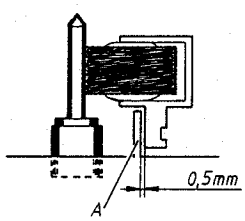
Height displacements can be rectified by means of the washer under the head fixtures.

The following washers can be used:

2624052	0.1 mm
2624053	0.2 mm
2624054	0.3 mm

Frigang trykrulle

Thrust Roller Clearance



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Tonehovedbroen trykkes i bund.

Afstanden mellem tappen A på tonehovedbroen og trykrullearmen skal da være ca. 0,5 mm.

Justering foretages ved at bukke tappen A.

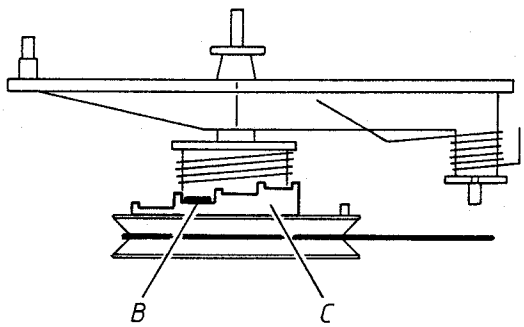
Press the tape head bridge until it bottoms.

The clearance between the pin A on the tape head bridge and the thrust roller arm should now be approx. 0.5 mm.

Make this adjustment by bending the pin A.

Opsamlemoment

Take-up Momentum



Opsamlekoblingen position 22061 afmonteres.

Justering foretages med messingringen B. Opsamle-momentet skal ligge indenfor 30-80 p/cm.

Er momentet for lavt, trækkes messingringen B op fra remskiven og drejes op ad trappetrinene C.

Er momentet for højt, drejes messingringen ned ad trappetrinene.

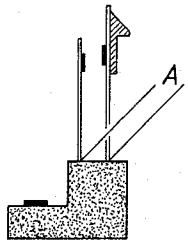
Remove the take-up clutch 22061.

Make the adjustment with thet brass ring B.
The take-up momentum shall be in the range 30-80 p/cm.

In case the momentum is too low, pull the brass ring B away from the pulley and turn it up the steps C.

In case the momentum is too high, turn the brass ring down the steps.

Mikroswitche



De tre mikroswitche på løbeværkets bagkant kan justeres til sikkert skift, ved ilægning og udtagning af en kassette, ved at bukke switchene forsigtigt i punkterne A.

Play sugespole

Når ankeret på 22RL1 trykkes i bund, skal det øverste kurvehjul 22097 gå i indgreb; sker dette ikke foretages følgende justering:

Skruerne A løsnes, og sugespolen 22RL1 trækkes frem i pilen C's retning.

Sugespolen holdes fast, og ankeret trykkes i bund, derefter trækkes sugespolen forsigtigt tilbage indtil det øverste kurvehjul 22097 går i indgreb.

Wind sugespole

Når ankeret på 22RL2 trykkes i bund, skal det nederste kurvehjul 22104 gå i indgreb; sker dette ikke foretages følgende justering:

Skruerne B løsnes, og sugespolen 22RL2 trækkes frem i pilen D's retning.

Sugespolen holdes fast, og ankeret trykkes i bund, derefter trækkes sugespolen forsigtigt tilbage indtil det nederste kurvehjul 22104 går i indgreb.

Micro-Switches

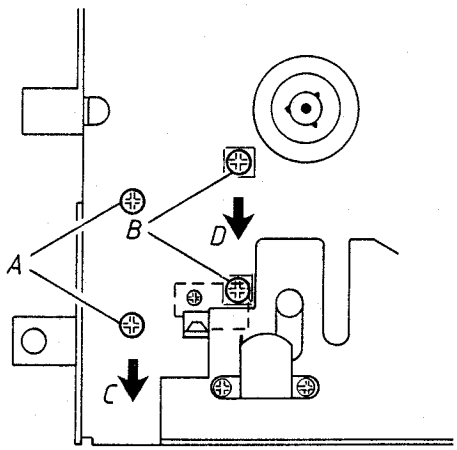
The three micro-switches at the rear edge of the train drive can be adjusted to reliable switching during casette loading and unloading by carefully bending the switches at the points A.

Play Solenoid

When the armature in 22RL1 is pressed downwards until it bottoms, the top camwheel 22097 shall engage; if this does not happen, make the following adjustments:

Loosen the screws A and pull the solenoid 22RL1 forwards in the direction of the arrow C.

Hold the solenoid firmly while pressing the armature rearwards until the top camwheel 22097 engages.



Wind Solenoid

When the armature in 22RL2 is pressed downwards until it bottoms, the lower camwheel 22104 shall engage; if this does not happen, make the following adjustments:

Loosen the screws B and pull the solenoid 22RL2 forwards in the direction of the arrow D.

Hold the solenoid firmly while pressing the armature rearwards until the bottom camwheel 22104 engages.

JUSTERINGER PLADESPILLER

De 3 transportmøtrikker løsnes.

Hastighed

33 omdr./min. skal justeres først. Justeringen foretages med 19R14.

45 omdr./min. justeres med 19R12.

Hastigheden kan kontrolleres på to måder:

1. Med stroboskive og en lampe tilsluttet lysnettet. Denne kontrol giver en unøjagtighed på ca. 2%, da netfrekvensen på 50 Hz afgiver ca. ±1 Hz.
2. Med stroboskive og stroboskoplampe. Denne kontrol giver en nøjagtighed, som svarer til stroboskoplampens tolerance, hvilket normalt er betydeligt bedre end netfrekvensen.

ADJUSTMENTS, RECORD PLAYER

Loosen the 3 shipment nuts.

Speed

First adjust 33 r.p.m. Make the adjustment with 19R14.

Next adjust 45 r.p.m. with 19R12.

The speed can be checked in two ways:

1. With a stroboscopic disc and a lamp connected to the electric mains. This check will result in an inaccuracy of approx. 2% since the 50 Hz mains frequency fluctuates approx. ±1 Hz.
2. With a stroboscopic disc and a stroboscopic lamp. This check will result in the same accuracy as the tolerance of the stroboscopic lamp which is normally much closer than that of the electric mains.

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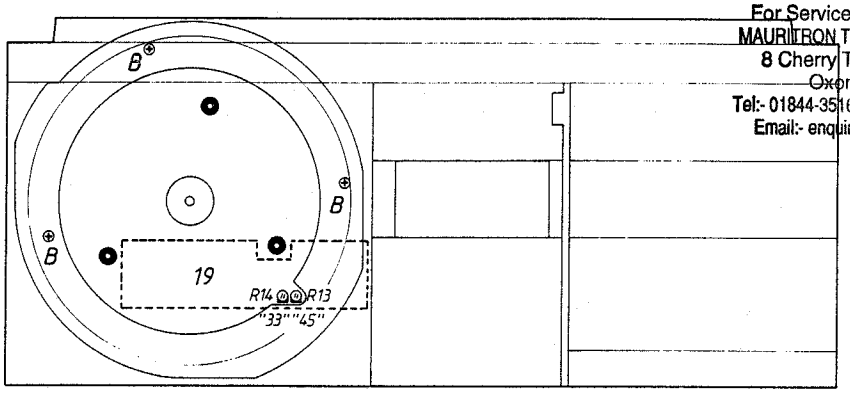
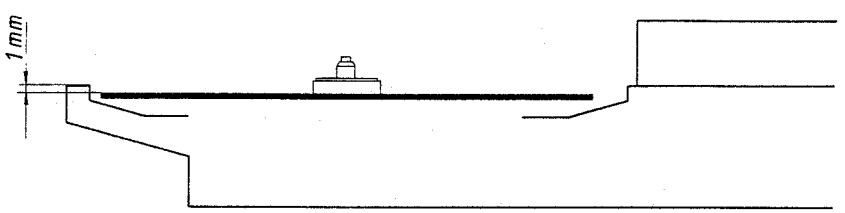


MEKANISKE JUSTERINGER

Ved mekaniske justeringer bør apparatet ikke være tilsluttet netspænding.

Værk højde



Værk højden justeres med skruerne B indtil overkanten af pladetallerkenen er 1 mm under overkanten af chassiset hele vejen rundt.

MECHANICAL ADJUSTMENTS

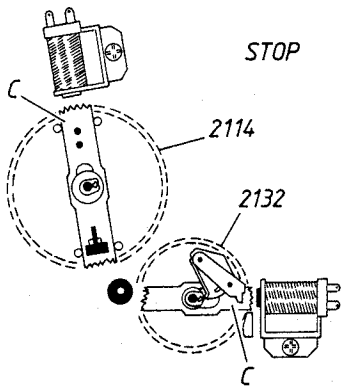
The set should not be connected to the electric mains during the mechanical adjustments.

Turntable Height

Adjust with the screws B the turntable height until the platter topside is 1 mm below the top edge of the chassis all the way round.

Pick-up arm hæv/sænk

De to kurvehjul (pos. nr. 2114 og 2132) kan aktiveres ved at skubbe den tværgående midterarm C ind mod centrum og derefter dreje svingringen.



Kurvehjulet 2132 stilles i stilling STOP.

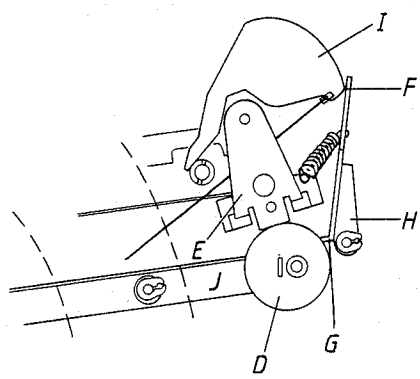
Eksentrik D drejes forsigtigt indtil den netop berører vippen E, således at armen J er fri for slør.

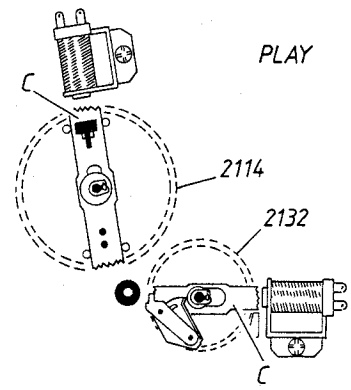
Kurvehjulet 2132 stilles i stilling PLAY.

Afstanden mellem armen H og pick-uparmsholderen I skal være 1 mm i punktet F. Er afstanden større eller mindre end 1 mm, bukkes armen H i punktet G.

Tonearm Raising/Lowering

The two camwheels 2114 and 2132 can be activated by pushing the traversing centre arm C towards the centre and then turn the fly-wheel.





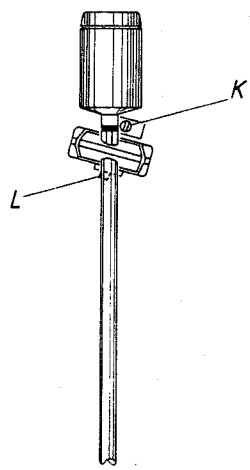
Set the camwheel 2132 in its stop position.

Turn the eccentric disc D carefully until it just is touching the lever E and the arm J is free of slack.

Set the camwheel 2132 in play mode.

The distance between the arm H and the tonearm holder I shall be 1 mm at the point F. Bend the arm H at the point G, if the distance is smaller or greater than 1 mm.

Pick-up højde



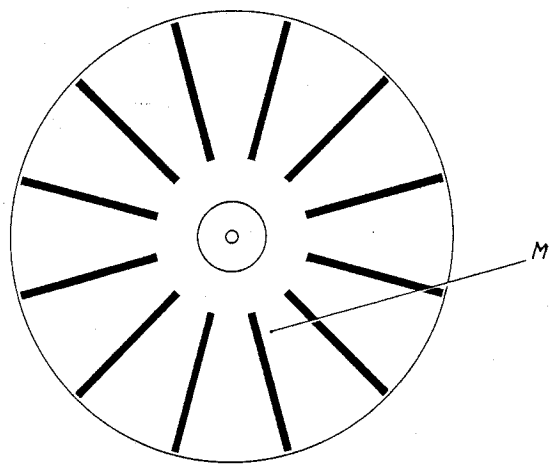
Eksentrik K drejes mod uret til stop.

Kontravægten stilles 0,5 g under balancepunktet.

Kurvehjulet 2132 stilles i stilling STOP.

Pick-up armen føres ind over den inderste del af pladetallerkenen (punktet M).

Pick-up Height



Turn the eccentric K anti-clockwise until its stop.

Set the counterbalance weight at 0.5 gram below the point of balance.

Set the camwheel 2132 in its stop position.

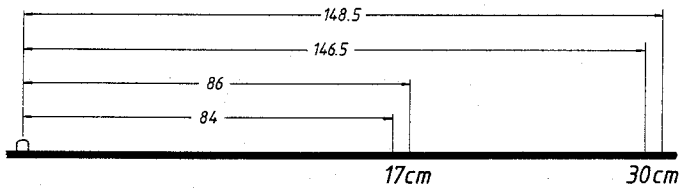
Take the tonearm inwards over the centre part of the platter (the point M).

Skruen L justeres til afstanden mellem pick-up nål og pladetallerken er 5 mm.

Adjust the screw L until the distance between the pick-up stylus and the platter is 5 mm.

Pick-uparm nedslag

Tonearm Touch-down

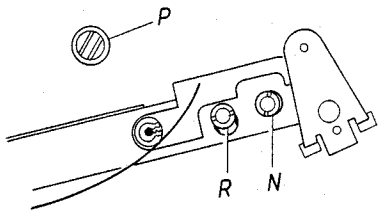


Med eksentrik N justeres til korrekt 30 cm nedslag.

Med eksentrik P justeres til korrekt 17 cm nedslag.

Adjust with the eccentric N until the correct 30 cm touch-down point.

Adjust with the eccentric P until the correct 17 cm touch-down point.



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Pick-uparm stopposition

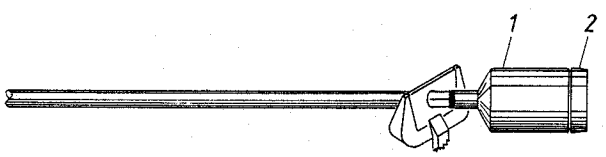
Eksentrik R drejes med uret til den viste position, og drejes derefter mod uret, indtil pick-uparmen i sin stop position er parallel med chassis siden. Stop positionen kontrolleres ved at køre pick-uparmen ind og ud ved hjælp af svingringen.

Tonearm Stop Position

Turn eccentric R clockwise to the position shown, and then turn it anticlockwise until the tonearm in its stop position is parallel to the chassis side. Check the stop position by letting the tonearm travel in and out by means of the fly-wheel.

Pick-uparm balance

Tonearm Balance



Kontravægten (1) skrues ud eller ind til pick-up armen er i balance.

Kontravægten holdes fast, og skalaen (2) nulstilles.

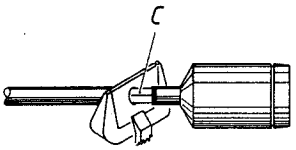
Kontravægten, der leveres med apparatet, er forindstillet og låst fra fabrikken.

Screw the counterbalance weight (1) inwards or outwards until the pick-up arm is balancing.

Hold the counterbalance weight firmly and zero the dial (2).

Prior to shipping the set, the manufacturer has pre-set and locked the counterbalance weight.

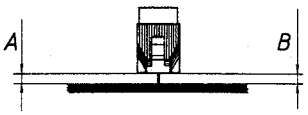
Pick-up parallelitet



Skruen C løsnes.

Pick-uparmen drejes til afstandene A og B er ens, og pick-up'ens plane stykke er parallel med pladens overside.

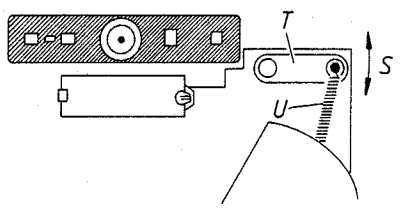
Tonearm Parallelism



Loosen screw C.

Turn the tonearm until the clearance A and B are equal and the straight section of the pick-up is parallel to the topside of the record.

Antiskating



Testplade 3621045 pålægges pladetallerkenen.

Nåletryk stilles til 1,5 gram med MMC 5.

Oscilloskop tilsluttes højre og venstre kanal.

Skæring 1 afspilles.

Armen T skubbes i retning S, til forvrængningen er ens i begge kanaler (ved forvrængning i venstre kanal skal fjedren U slækkes, for højre kanal skal fjedren strammes).

Antiskating

Place the test record 3621045 on the platter.

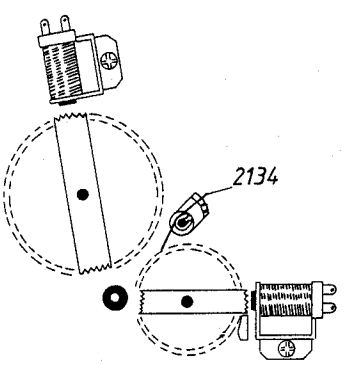
Set the stylus pressure at 1.5 grams with MMC 5.

Connect an oscilloscope to the right-hand and left-hand channels.

Play cut 1.

Push the arm T in either direction of the arrow S until there is equal distortion in both channels (slacken spring U for left-hand channel distortion, tighten it for right-hand channel distortion.

Fjeder 2134



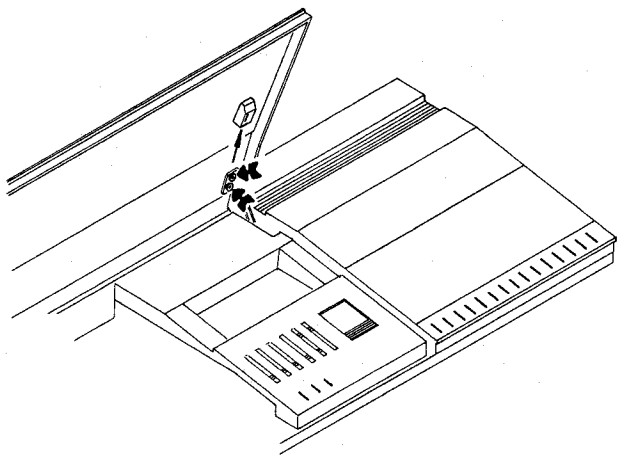
Fjederen 2134 skal altid monteres i hakket vist på skitsen.

Spring 2134

Always fit the spring 2134 in the notch as shown in the diagram.

Støvlåg

Dust Cover



Den viste kappe trækkes af i pilens retning.

Ved at løsne de med pile markerede skruer, kan låget justeres til korrekt pasning.

Lignende justering findes også i venstre side.

Pull the cover, as shown, off in the direction of the slender arrow.

The dust cover can be adjusted for correct fit by loosening the screws indicated by the bold arrows.

Similar adjustment can be made at the left-hand side as well.

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Bang&Olufsen

TECHNICAL SPECIFICATIONS

Amplifier

Power output RMS DIN	2 x 25 W/4 Ω
	2 x 20 W/8 Ω
Harmonic distortion -26 dB	<0.15%
Harmonic distortion	<0.2%
Intermodulation	<0.4%
Frequency range ±1.5 dB	20-20,000 Hz
Damping factor	>20
Input TAPE COPY	600 mV/40 kΩ
Signal-to-noise ratio PHONO	>78 dB
Output ext. TAPE (FM ±40 kHz)	200 mV 1 kΩ
Output PHONES	Max. 16 V/220 Ω
Channel separation 1000 Hz	>46 dB
BASS control at 40 Hz	±14 dB
TREBLE control at 12,500 Hz	±14 dB

FM Section

FM frequency range	87.5-108 MHz
Aerial impedance	75/240 Ω
Sensitivity stereo 46 dB	<35 µV/75 Ω
Frequency range ±1.5 dB	20-15,000 Hz
Harmonic distortion	<0.5%
Stereo channel separation	>35 dB

AM Section

LW range	147-350 kHz
MW range	520-1610 kHz
Sensitivity LW 20 dB	110 µV
Sensitivity MW 20 dB	90 µV

Record Player

Speeds	33/45 rpm.
Wow and flutter, DIN	<±0.7%
Wow and flutter, WRMS	<±0.035%
Rumble, weighted	>70 dB
Rumble, unweighted	>50 dB

MMC5

Stylus	Elliptical diamond 6x17 µm
Recommended tracking force	15 mN/1.5 g
Frequency range	20-20,000 Hz ±3 dB
Channel separation 1000 Hz	>20 dB
400-10,000 Hz	>15 dB
Channel difference	<2.5 dB
Effective tip mass	0.5 mg
Compliance	20 µm/mN
Sensitivity mV/cm/sec.	>0.6 mV/47 kΩ
Output 5 cm lateral	>2.12 mV/47 kΩ

Tape Recorder

Compact cassette	C60-C90
Tape head	Super permalloy
Noise reduction	Dolby B
Tape switch	Auto ferro/chrome
	Man. Metal
Wow and flutter	<±0.2%
Speed deviation	<±1.5%
Fast forward and rewind C60	75 sec.
Frequency range metal/chrome/ferro	30-15,000 Hz
Signal-to-noise ratio Metal Dolby NR	>66 dB
Signal-to-noise ratio Chrome Dolby NR	>65 dB
Signal-to-noise ratio Ferro Dolby NR	>63 dB
Signal-to-noise ratio Metal	>58 dB
Signal-to-noise ratio Chrome	>57 dB
Microphone input	0.15 mV/2 kΩ

Other Data

Power supply	110-130-220-240 V
Power frequency	50-60 Hz
Power consumption	18-135 W
Dimensions W x H x D	74 x 9.5 x 32.5 cm
Weight	11 kg

Subject to change without notice

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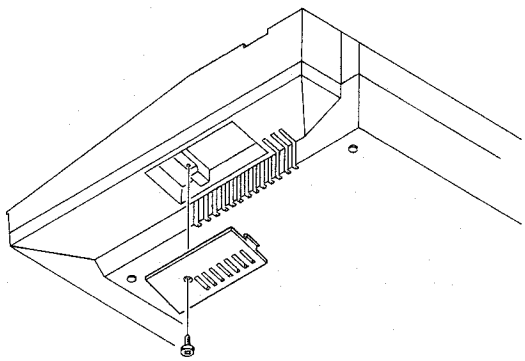
Bang&Olufsen

ADSKILLELSE

Sikringer

DISMANTLING

Fuses

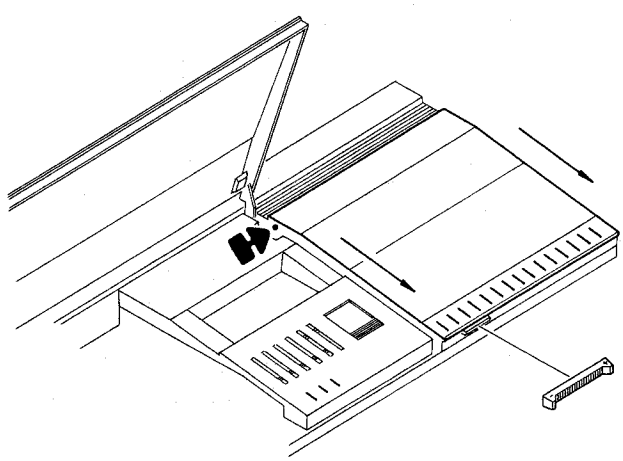


Når den viste skrue er fjernet, kan dækslet over sikringerne tages af.

After removal of the screw shown the fuse cover can be removed.

Skalalamper

Dial Lamps



Afmonter volumenknappen (ved at trække i den).

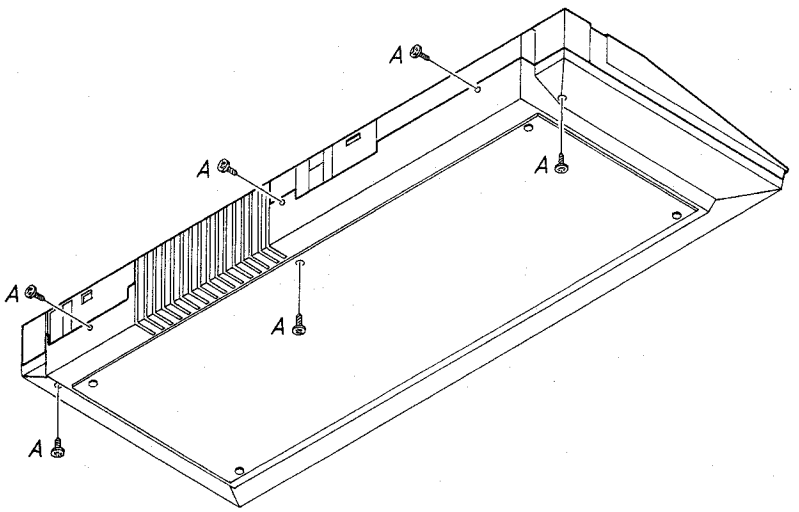
Låsepalen i skalapanelets venstre side presses ind med en skruetrækker og samtidigt trækkes skalapanelet frem som vist.

Remove the volume key (by pulling).

Press the locking pawl at the left side of the dial panel in with a screwdriver while simultaneously pulling the dial panel forwards as shown.

Bagprofil med støvlåg

Rear Profile with Dust Cover

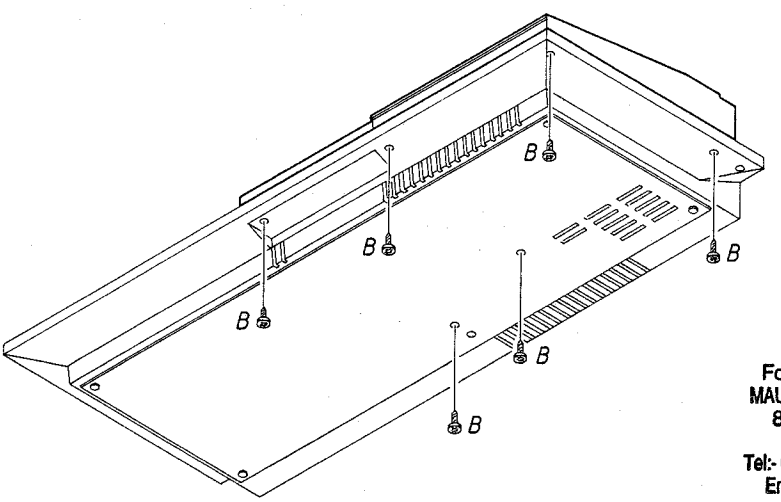


De tre viste skruer i bunden, samt de tre skruer i bagkanten skrues ud.

Unscrew the three screws shown at the bottom as well as the three screws at the rear edge.

Betjeningspanel

Control Panel



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Bagprofil med støvlåg afmonteres.

De seks viste skruer i bunden skrues ud.

Betjeningspanelet er nu frigjort og kan anbringes i servicestilling bagved apparatet (med enten knapper eller printplader opad).

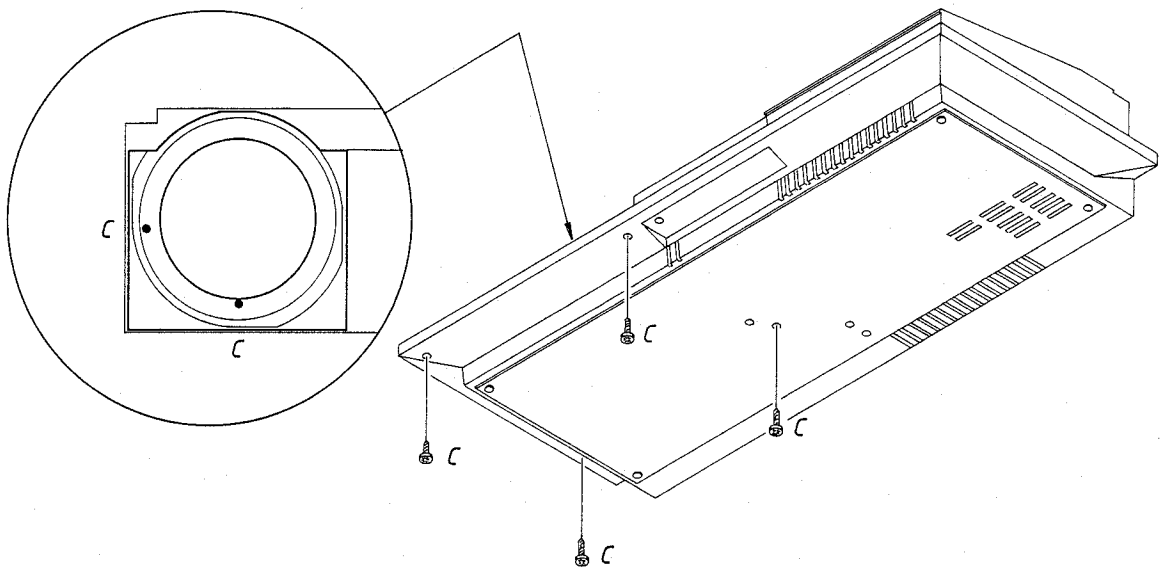
Remove the rear profile with dust cover.

Unscrew the six bottom screws shown.

The control panel is now released and can be placed in servicing position behind the set (with either buttons or PCBs facing upwards).

Topplade, pladespiller

Top Plate, Record Player



Bagprofil med støvlåg afmonteres.

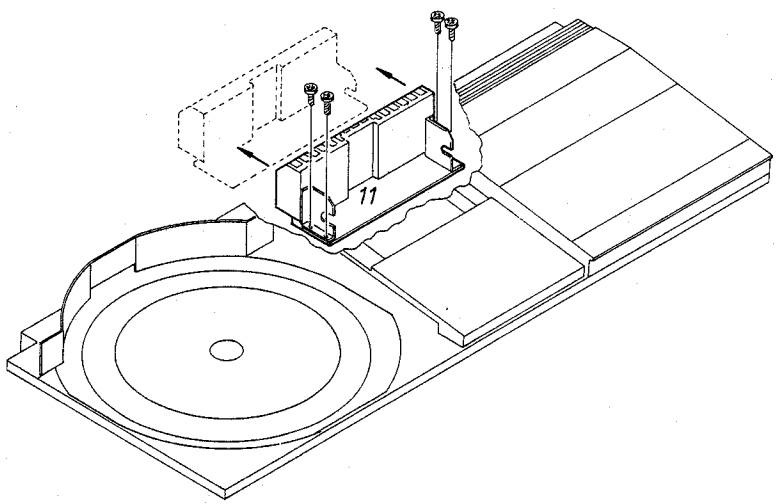
De fire viste skruer i bunden og de to i toppladen skrues af.

Remove rear profile with dust cover.

Unscrew the four bottom screws shown and the two in the top plate.

Udgangsforstærker, PCB11

Output Amplifier, PCB11



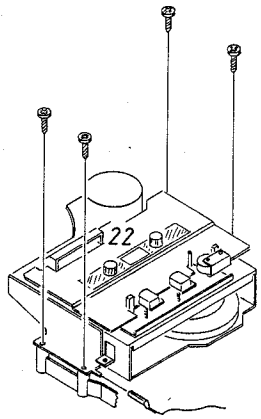
Bagprofil med støvlåg afmonteres.

Nu er PCB11 tilgængelig og kan rykkes ud i service-stilling ved at skrue de fire viste skruer ud.

Remove the rear profile with dust cover.

PCB11 is now accessible and can be pulled into servicing position after unscrewing the four screws shown.

Båndoptager

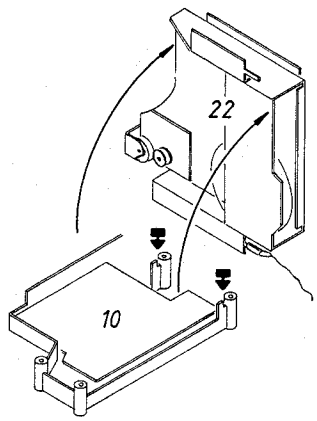


Toppladen for pladespilleren afmonteres og radiodelen anbringes i servicestilling.

De fire viste skruer fjernes.

Båndoptagerløbeværket kan nu løftes op og anbringes i servicestilling (de to viste hak i støttebenene på bundpladen).

Tape Recorder



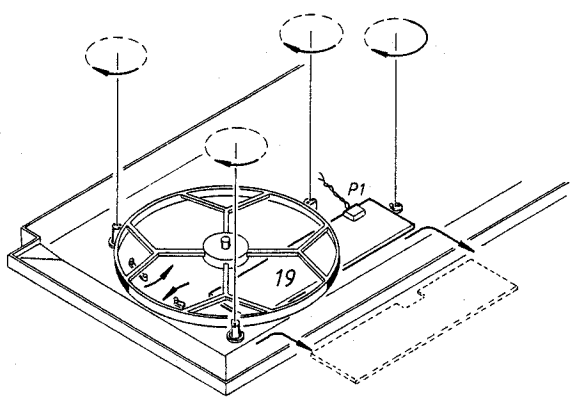
Remove the top plate of the record player and place the radio section in servicing position.

Unscrew the four screws shown.

The tape recorder drive train can now be lifted and placed into servicing position (the two notches shown in the bottom plate supports).

Pladespillerkredsløb, PCB19

Record Player Circuit, PCB19



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Toppladen for pladespilleren aftages:

De tre viste stop for svingning drejes 1/4 omdr. med uret.

Rem og svingring aftages.

De to arme/ledningsholdere drejes, således at ledningsbundtet for motoren kan frigøres.

Aftag P1.

Drej det viste stop for PCB19 1/2 omdr.

Ved at skubbe PCB19 til højre kan den nu trækkes ud over apparatets forkant som vist.

Remove the top plate of the record player.

Turn the three stops of the fly-wheel 1/4 turn clockwise.

Remove belt and fly-wheel.

Turn the two arms/wire holders in such a way that the bundled wires for the motor can be released.

Remove P1.

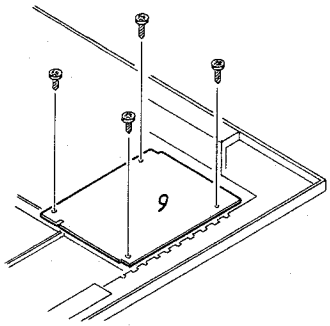
Turn the stop shown for PCB19 1/2 turn.

By pushing PCB19 to the right it can now be pulled over the front edge of the set, as shown.

NB: *Husk at dreje de tre stop for svingring tilbage ved samling af apparatet.*

NOTE: *Do not forget to turn the three stops back when re-assembling the set.*

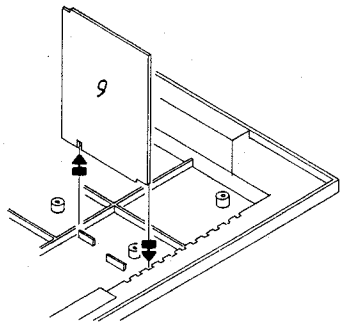
Gengiveforstærker og Dolby, PCB9



De fire viste skruer skrues ud.

PCB9 kan nu anbringes i en af udskæringerne i bundes forkant og med det viste hak i PCB9 i indgreb med bundribben.

Play-back Amplifier and Dolby, PCB9

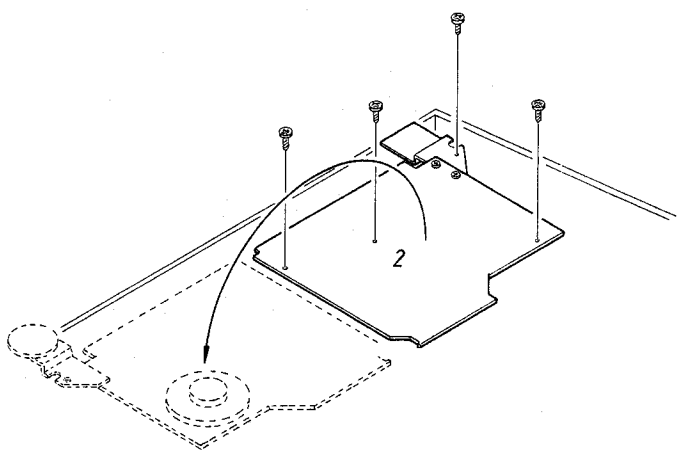


Unscrew the four screws shown.

PCB9 can now be placed in one of the notches at the front edge of the bottom so that the notch of PCB9 engages the bottom comb.

AM-FM del

AM-FM Section



Når de fire viste skruer er afmonteret kan PCB2 vippes over i servicestilling ovenpå PCB 5/6/8. – Der bør dog anbringes et stykke isolerende materiale mellem disse og PCB2!

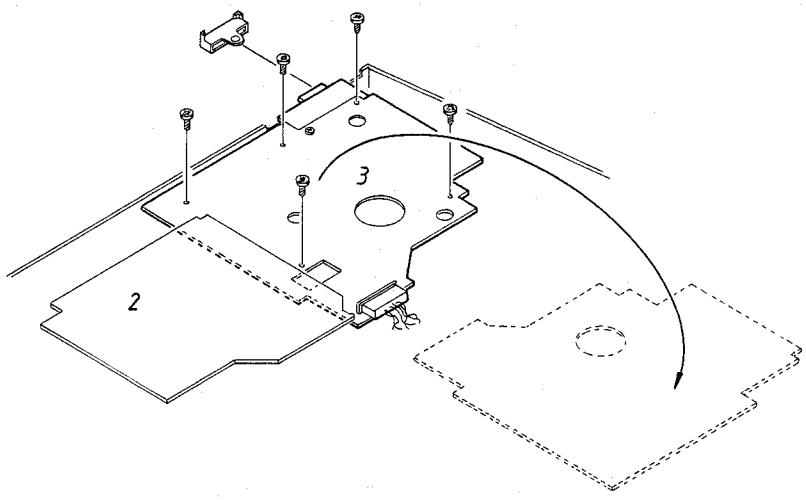
NB: *Husk kontrol af skalapasning ved samling (se justeringer og servicetips).*

When the four screws shown are unscrewed, PCB2 is tiltable into servicing position on top of PCB 5/6/8. – However, an insulating material should be inserted between these and PCB2!

NOTE: *Do not forget to check dial alignment when re-assembling (see adjustments and service tips).*

Kontrolkredsløb PCB3

Control Circuit, PCB3



PCB2 anbringes i servicestilling.

Styr for skalaknap trækkes af.

Når de fem skruer er skruet ud, kan PCB3 vippes over som vist.

Place PCB2 into servicing position.

Pull off guide for dial knob.

When the five screws are unscrewed, PCB3 is tiltable, as shown.

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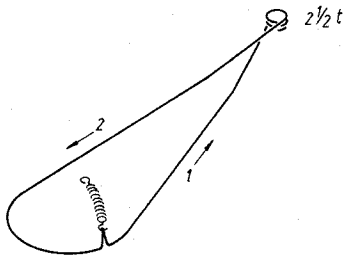
Bang&Olufsen

SERVICETIPS

Skalasnor



Mekanisk skalapasning

Skala og afmaskning afmonteres (se adskillelse).

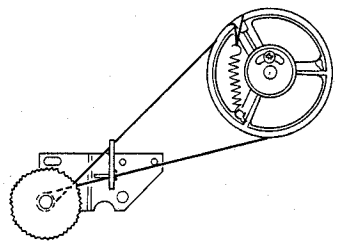
Drejekondensatoren drejes helt ud (min. kapacitet).

Skruen A løsnes og skalaviseren (0D1) justeres til at være ud for mærket B.

Skruen A strammes.

SERVICETIPS

Dial Cord



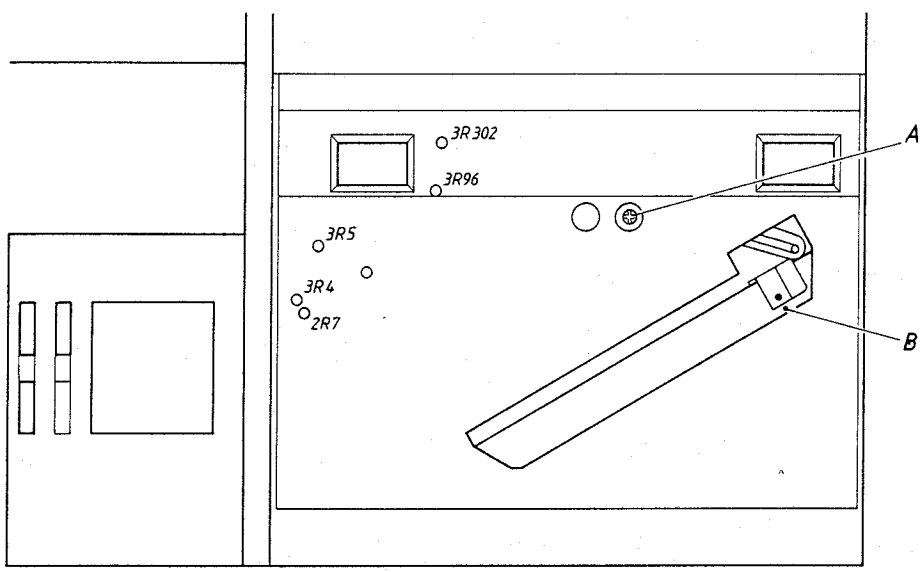
Mechanical Dial Calibration

Remove dial and masking (see Dismantling).

Turn the variable capacitor all the way out (min. capacitance).

Loosen the screw A and set the dial pointer (0D1) opposite the indication point B.

Tighten the screw A.



PCB2 og PCB3 justeringer

Følgende justeringer er tilgængelige gennem huller i betjeningspanelet, når skala m.m. er afmonteret (se adskillelse):

3R96	Next pause
3R302	Next følsomhed
3R4	PPM -20 dB
3R5	PPM 0 dB
2R7	Afstemningsspænding 108,5 MHz.

PCB2 and PCB3 Adjustments

The following adjustments are accessible through apertures in the operating panel when the dial etc. has been removed (see Dismantling):

3R96	Next pause
3R302	Next sensitivity
3R4	PPM -20 dB
3R5	PPM 0 dB
2R7	Tuning voltage 108.5 MHz

Smøring

Behovet for eftersmøring er minimalt, men ved større eftersyn og ved udskiftning af vigtige mekaniske dele, bør disse retningslinier følges.

Lubrication

The need for lubrication is negligible, but the directions given below should be followed during overhauls and when replacing major mechanical components.

Tonehovedbro 22012: Glideflader mod tappe i topchassis, vinkel 22013 og kugle 22025. Kobling 22060: Glideflade mod vinkel 22066 og vinkel 22064. Kurvehjul 22097 og 22104: Glideflade mod aksel i topchassis.	Tape head bridge 22010: Fase slidings against taps in top chassis, bracket 22013 and ball 22025. Clutch 22060: Fase sliding against bracket 22066 and bracket 22064. Cam lifting wheel 22097 and 22104: Fase sliding against shaft in top chassis.	3984216 Rocol MTS 1000
Trykrulle 22020: Glideflade mod aksel. Svinghjul 22122: Glideflade mod bundleje	Pressure wheel 22020: Fase sliding against shaft. Flywheel 22122: Fase sliding against bottom bearing 22124.	3984021 Eprohon grease
Spoletallerkener 22034 og 22048: Glideflader mod aksler i topchassis og og ring 22036. Berøringsflader mellem aksel 22029, vinkel 22044 og vinkel 22043.	Shafts for turntables 22034 and 22048: Fase slidings against shafts in top chassis and ring 22036. Surfaces of contact between shaft 22029, bracket 22044 and bracket 22043.	3984022 Floil GB-TS-1

Wow frekvenser

Wow frequencies

Frekvens/Frequency	Fejlkilde	Source of Failure	Pos. nr./Pos. no.
0.37 Hz	Remskive	Pulley	22096
1.17 Hz	Trykrulle	Thrust roller	22020
2.7 Hz	Spoletallerkener (midt på bånd)	Supply reels (middle of tape)	22034/22048
3 Hz	Rem	Belt	22065
4.2 Hz	Rem	Belt	22123
6 Hz	Svinghjul	Flywheel	22122
9.6 Hz	Opsamlekobling	Take-up clutch	22061
12.7 Hz	Remskive	Pulley	22109
36.7 Hz	Remskive	Pulley	22141

Ledningsfarver

Colour of Wires

b	black	schwartz	sort	noir
bl	blue	blau	blå	bleu
br	brown	braun	brun	brun
gr	green	grün	grøn	vert
grey	grey	grau	grå	gris
or	orange	orange	orange	orange
r	red	rot	rød	rouge
v	violet	violett	violet	violet
wh	white	weiss	hvid	blanc
y	yellow	gelb	gul	gaune

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Permanent tilslutning af ekstern båndoptager

Ved permanent tilkobling af f.eks. en båndoptager til TAPE COPY stikdåsen kan der monteres 8 stk. 8 mm høje glidesko under apparatet, således at ledningen til den eksterne båndoptager kan placeres under apparatet.

Glideskoene leveres i sæt af 4 stk., under reservedelsnr. 3103122.

Permanent Hook-up With External Tape Recorder

For permanent hook-up of, say, a tape recorder to the TAPE COPY plug, fit 8 of 8 mm high sliding shoes below the set so the hook-up wiring for the external tape recorder can be concealed below the set.

The sliding shoes are available in sets of 4 as spare part No. 3103122.

Tonehovedbro går fast

I de først producerede apparater kan der forekomme en fejl, hvor tonehovedbroen går fast (for lidt frigang).

Problemet løses ved at udskifte styret pos. nr. 22008. Det nye styr leveres sammen med en kugle (som pos. nr. 22024).

Ændringen er indført i produktionen.

Tape head bridge seizes

In the early sets a fault may arise that the tape head bridge seizes (too little clearance).

The problem may be solved by replacing guide pos. no. 22008. The new guide is delivered together with a ball (like pos. no. 22024).

Modification has been introduced in production.

Apparat starter ikke på P1

Apparatet starter periodisk ikke på P1, når det (i varm tilstand) slukkes, og tændes umiddelbart efter.

Problemet kan løses ved at afbryde 12 V forsyningen til ben 13-14 på 3IC3 og indskyde en modstand 22 kΩ, samt montere en kondensator 22 µF/16 V fra ben 13-14 til stel.

Ændringen er indført i produktionen efter ca. 12.500 apparater.

Set Does Not Start On P1

The set periodically does not start on P1, when it is (in warm condition) switched off, and immediately after switched on.

The problem can be solved by interrupting the 12 V supply to pins 13-14 on 3IC3 and inserting a resistor 22 kΩ, as well as mounting a capacitor 22 µF/16 V from pins 13-14 to chassis.

The modification was introduced in production after approx. 12,500 sets.

Kontrol af bias

Bias kan kontrolleres ved forvrængningsmåling:

Fe_2O_3	2%
CrO_2	2%
Metal	1%

Check of Bias

Bias may be checked by means of distortion measurements:

Fe_2O_3	2%
CrO_2	2%
Metal	1%

ISOLATIONSTEST

Ethvert apparat **skal** isolationstestes efter det har været adskilt. Testen udføres når apparatet igen er helt samlet og klar til udlevering til kunden (med transportskruerne spændte).

Isolationstesten udføres på følgende måde:

De to stikben på netstikket kortsluttes og tilsluttes en af terminalerne på isolationstesteren.

Netafbryder sættes i position ON.

Den anden terminal fra isolationstesteren tilsluttes stelbenet i en af højttalerstikdåserne.

OBS!
For at undgå beskadigelser på apparatet er det vigtigt, at begge terminaler fra isolationstesteren har virkelig god mekanisk kontakt.

Der drejes nu langsomt med spændingsreguleringen på isolationstesteren til en spænding på 1,5 – 2 KV er opnået. Her skal den holdes i 1 sekund, derefter drejes der langsomt ned for spændingen igen.

Der må ikke på noget tidspunkt under testen forekomme overslag.

INSULATION TEST

Each record player **must** be insulation tested after having been dismantled. The test is to be made when the record player has been reassembled completely and is ready for delivery to the customer (with the transit screws tightened).

Make the insulation test as follows:

Short-circuit the two pins of the mains plug and connect one of the terminals to the insulation tester.

Set the mains switch in position ON.

Connect the other terminal of the insulation tester to the chassis pin in one of the speakers sockets.

NOTE!
To avoid ruining the record player it is essential that both insulation tester terminals are in really good mechanical contact.

Now slowly turn the voltage control of the insulation tester until a voltage of 1.5-2 kV is obtained. Hold it there for 1 second, then turn the voltage down again.

At no point during the testing procedure any flash-overs are permissible.

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